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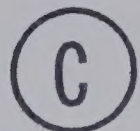






THE UNIVERSITY OF ALBERTA  
A FOLLOW-UP STUDY OF HIGH SCHOOL  
GRADUATES AND DROPOUTS

by



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A THESIS

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ABSTRACT

UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES

This study is a follow-up of 82 male and female high school graduates and 10 high school dropouts from the 1963 grade IX graduating classes of three County of Strathcona high schools. By comparing the graduates with the dropouts, it was hoped to discover what the effects of graduating from high school, or dropping out, had on educational achievement, employment, and income.

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled, "A Follow-up Study of High School Graduates and Dropouts", submitted by Ernie E. Leeck in partial fulfillment of the requirements for the degree of Master of Education.





## ABSTRACT

This study investigated a group of 62 male and female high school graduates and 59 male and female high school dropouts from the 1963 grade IX graduating classes of three County of Strathcona high schools. By comparing the graduates with the dropouts, it was hoped to discover what the effects of graduating from high school, or dropping out, had on educational, vocational and economic achievements.

The majority of the high school graduates and dropouts engaged in the pursuit of additional education and training after leaving school. By comparison, more dropouts than graduates and more males than females sought further educational experiences. Although the male dropouts were lower achievers than the male graduates and tended to enter educational programs which demanded less rigorous academic requirements, most male dropouts in this particular study demonstrated a considerable amount of foresight in acquiring skills that would make their services marketable.

Unemployment for all the people surveyed was neither a problem when they left school nor at the time of the survey. The males who were not occupied at full-time employment were occupied as students. Comparatively, the females who were not occupied at full-time employment were occupied as homemakers. In this study the income for the dropouts and graduates was not statistically different. The only





significant difference was between the males and females, with the males earning significantly more money.

Comparison of economic achievement was conducted for the male groups only. The results indicated that practically every boy owned an automobile, the average value being almost identical for both groups. Furthermore, the male dropouts saved money, invested in stocks, bonds, real estate, and carried mortgages on family dwellings.

The male and female dropouts found certain aspects of their past school experiences less favorable than the graduates, especially in the area of curriculum and their (males) relationship with persons in authority. Whereas the curriculum in the school tended to be more suitable for the girls, they tended to be the alienated sex. Both groups of girls expressed that it was often difficult to become involved in extra-curricular activities because of the monopolization by "in-groups". Although only one-quarter of all persons surveyed indicated that the guidance services were helpful, one-half of the total group expressed a need for guidance and counselling services and said that they would use them at the present time.

On the short term basis, this study failed to find differences in achievements for the dropouts and graduates. Most of the dropouts were adjusted to the adult world of work and were not those people commonly thought to be dependent on welfare, involved in crime, and generally, a burden to society.





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## CHAPTER I

### INTRODUCTION

The current high school dropout problem is a relatively modern phenomenon which has presented itself over approximately the past twenty-five years. Prior to this period, there were more high school dropouts than high school graduates, and a boy could usually gain employment in the relatively unskilled, or semi-skilled labor market. However, with the advent of rapidly increasing industrialization and automation, and with the launching of the Russian Sputnik, tremendous energies were expended in scientific and industrial development. These gigantic advances in technological development raised the average level of minimum education required to meet the demands of the skilled and professional occupations.

The acuteness of the problem was demonstrated in the United States, in 1963, when President Kennedy initiated the national summer dropout campaign to persuade actual and potential dropouts that it was in their best interests to attend high school in the fall of 1963.<sup>1</sup>

A phrase that has become very popular in describing the seriousness of the current dropout rate has been credited to Conant (1961) who described the accumulation of

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<sup>1</sup>"The 1963 Dropout Campaign," U.S. Department of Health, Education and Welfare (Washington, D.C., 1964), p. 1.





school dropouts as "social dynamite."<sup>2</sup>

In 1967, H.H. Humphrey expressed political concern over the dropout situation and was quoted as saying "one million dropouts should be the Sputnik of 1967."<sup>3</sup> Furthermore, he questioned the effectiveness of the American educational system by equating it with the business community. He pointed out "that when a business loses customers as fast as our schools do, management must ask what is wrong with the product."<sup>4</sup>

Although the school dropout problem in Canada and the United States is viewed with increasing alarm, the actual rate of students dropping out of school has been continually decreasing.<sup>5</sup> Why the alarm? Even though the rate is decreasing by percentage, the actual number of dropouts remains relatively constant and with the accumulation of these individuals over the years, along with the decreasing demand for unskilled and semi-skilled workers, a formidable social force is thought to be developing.

The abundance of research studies concerning the school dropout have been categorized into six major areas

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<sup>2</sup>James Conant, Slums and Suburbs (Newfork, 1961), p.6.

<sup>3</sup>Hubert Humphrey, "One Million Dropouts - Sputnik of 1967," American Education, III (September, 1967), p. 32.

<sup>4</sup>Ibid.

<sup>5</sup>D. Black, R. MacArthur, and J. Paterson, "Pupil Personnel in Alberta Secondary Schools," Advisory Committee on Educational Research, Monograph No. 6 (University of Alberta, 1961), p. 2.



established by the study "Project: School Dropouts" for the National Education Association by Schreiber, Kaplan and Strom (1965).<sup>6</sup>

Consequently, the following six questions have dominated research on the school dropout:

1. How many students drop out of school?
2. Who are the dropouts and what are they like?
3. Which students will drop out?
4. What are the reasons for dropping out?
5. What happens to dropouts?
6. What ways and means can be developed to reduce the dropout rate?<sup>7</sup>

The majority of the investigations conducted have dealt with the first four questions. But the question of what happens to the student who withdraws from school prior to graduation and the preventive measures that should be taken have lacked research, which has resulted in many inconclusive and contradictory statements in numerous studies.

#### Statement of the Problem

It is uncertain what happens to the school dropout. In the limited number of follow-up studies conducted, evidence fails to support the popular assumption that the

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<sup>6</sup>D. Schreiber, B. Kaplan, and R. Strom, Project: School Dropout, (N.E.A., 1965), pp. 11-13.

<sup>7</sup>Ibid.





dropout is more prone to delinquency, to be placed on the welfare role, has a higher rate of unemployment, experiences much occupational change, does not earn as much money, and has lower occupational status. Contrary to those beliefs, a recent Alberta Study (Vincent and Black, 1966) cited that high school dropouts do not swell the ranks of the unemployed, generally found their vocations satisfying, and the particular group studied earned more money than the average Canadian.<sup>8</sup>

In the present study, the writer attempted to determine how youth adjusted to the adult world of work and whether those students who graduated from high school were better prepared to cope with having to make their way more effectively than the high school dropout.

Through the comparison of the two groups, it was hoped that additional light would be shed on the value of the attainment of a high school diploma for those students.

#### Methods and Procedures

In attempting to determine how young people are occupied a few years after leaving school, through graduation or early withdrawal, two groups of students were chosen for a follow-up study.

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<sup>8</sup>C. Vincent, and D. Black, Dropout is Society's Burden: Fact or Fiction, Canadian Education and Research, VI (December, 1966), pp. 326-329.



The two groups were selected from the total grade IX population of 309 students in the County of Strathcona. The first group was comprised of 59 boys and girls who left the school system prior to high school graduation and were known not to have transferred to another school. The second group of 62 boys and girls consisted of those who had graduated from county high schools. This was a stratified sample chosen randomly.

In determining which students discontinued their education and did not transfer to another school, investigations were conducted into school cumulative records, school personal files, and School Board records, before the decision was made to include the student in the sample. In certain instances, records were incomplete and consequently it was sometimes difficult to determine, with absolute certainty, whether the student transferred to another school.

Once the two groups were selected, telephone numbers and addresses were obtained and each subject was contacted (where possible) and asked to participate in the follow-up study by providing pertinent information requested via questionnaire. Ninety-six of the possible 122 people were located and mailed a questionnaire as well as a self-addressed envelope. When personal contact was made with the subjects, the response was overwhelmingly positive.

The information collected for this thesis was for the purpose of conducting a follow-up study of a group of





high school dropouts and high school graduates who previously attended the County of Strathcona school system. The two groups consisted of a) students who obtained the requirements necessary to qualify for an Alberta High School Diploma, and b) other students who wrote the Grade IX Departmental Examinations on the same occasion as the graduates, but as a result of varying circumstances, failed to obtain the required number of credits to graduate from high school.

Voluminous research studies on the school dropout concentrate on describing his characteristics in order to identify the potential dropout, the reasons why students leave school, and the number of school dropouts. However, there was a definite lack of research on longitudinal studies exploring the consequences of failure to complete a prescribed program of studies. Thus, the Grade IX Class of 1963, in the County of Strathcona, was selected and a comparative analysis was made between the students who dropped out of high school and those who graduates. Comparisons were made in the following areas:

1. present marital and family status
2. past school experiences
3. attitudes towards education generally, their former relationship with peers and teachers, and opinions on the school counselling and guidance service.
4. vocational achievement, economic achievement, and educational achievement.



## Hypotheses

As a result of inconclusive evidence between the popular notions of dropping out of school and being unsuccessful in adult life, and the contradictory evidence that resulted from research in this area, the hypotheses stated in this paper were constructed in the form of null hypotheses.

The hypotheses to be tested for a group of high school graduates and a group of high school dropouts were:

1. There is no difference in their continuing education patterns.
2. There is no difference in their vocational achievement.
3. There is no difference in their economic achievement.
4. There is no difference in their past school experiences.

## Definition of Terms

HIGH SCHOOL GRADUATE: is a student who has completed a prescribed program of studies, as set forth by the Alberta Department of Education, by either receiving a General High School Diploma, or a Senior Matriculation Diploma.

HIGH SCHOOL DROPOUT: is a student who leaves school, for any reason except death, before graduation or completion of a program of studies and does not transfer to another school or formal educational experience.





CONTINUING EDUCATION: is the enrollment in an educational or training program, other than in the high school. The programs range from the Alberta Apprenticeship Program to the University level.

### Limitations and Strengths of the Study

In many longitudinal follow-up studies of school dropouts, the response to a questionnaire-type survey is usually unfavorable, especially for those individuals who have difficulty coping in the adult world. This is a generalized limitation for any research design of this nature.

More specifically, the limitations of this thesis are due to the nature of the dropout population selected. Not included in the dropout group were those students who left school prior to grade IX. These are individuals who do not continue in school for reasons such as financial difficulty, illness or lack of academic ability.

Both groups, graduates and dropouts, were selected from the 1963 Grade IX graduation list. Therefore, any students who might have transferred into the County of Strathcona system between grades X and XII, inclusive, were not included in the population the samples were drawn from. Thus a relatively large transient student population could also have reduced the number of high school dropouts.

Although the average return of responses for the male and female dropouts was 80.5 percent, 25.8 percent of



the male dropouts failed to respond as opposed to 100 percent of the females who responded. Approximately one-quarter of the dropout males who were sent questionnaires did not return them. On the other hand, 92.7 percent of the male and female graduates who were sent questionnaires, responded. Although all the dropout girls who were located returned the questionnaires, their numbers were frequently too small for statistical analysis.

Together with the weaknesses of the design, there are strengths which were felt would offset the weaknesses. First, being a follow-up study the dropouts and graduates have been out of high school for a considerable length of time. The dropouts have been out of school anywhere from four to seven years and the graduates have been out of school for approximately four years. Secondly, the dropout group included all the students of the 1963 grade IX class who left school prior to high school graduation.

The usual return of 50 to 60 percent for survey-type designs was surpassed with an 87.5 percent return from those subjects whose whereabouts were known. Every effort was made to obtain responses from all the subjects regardless of where they resided. Furthermore, 85.4 percent of the subjects located were personally contacted before a questionnaire was mailed to them.





## Organization of the Thesis

Following the introduction on the nature and purpose of the thesis in Chapter I, a condensed review of literature related to the many areas of dropout research, with major emphasis placed on follow-up research, is discussed in Chapter II. Chapter III contains a discussion and description of the design of the study along with the methods and procedures of collecting data and administering the questionnaire. The information gathered via questionnaire is categorized and presented in Chapter IV. Finally, a summary, the implications, and recommendations for further research are presented in Chapter V from the results obtained from the analysed data.



## CHAPTER II

### SOME RELATED LITERATURE

The concern regarding early school dropouts has demanded local and national attention, but the most obvious concern appears to be in the United States, as was demonstrated by the voluminous number of research articles reported in United States Journals. Consequently, the majority of the research reviewed by the writer was conducted in the U.S.A. Investigations pertaining to the Canadian dropout scene were few.

Numerous factors were found to be associated with dropout studies which ultimately varied from one locality to another. Even though investigations in the field take on many forms, the following six questions dominated the scene:

1. How many pupils drop out of school?
2. Who are the dropouts, and what are they like?
3. Which pupils will drop out?
4. What are the reasons for dropping out?
5. What happens to dropouts?
6. What ways and means can be developed to reduce the dropout rates?

The answers to these six questions, established by Schreiber, Kaplan and Strom (1967), will be summarized by reviewing the current research in Canada and the United States; and since the major concern of this thesis is what actually happens to school dropouts, major emphasis will be directed to this area.





### Dropout Rate

Although the school dropout problem in Canada and the United States is viewed with increasing alarm, the actual rate of students dropping out has been continually decreasing.

In the United States, 30.2 percent of those students who were enrolled in the fifth grade in 1924, graduated with a high school diploma in 1931. This has steadily increased to 50.5 percent of the fifth graders in 1942-43 who graduated in 1950, to 71 percent of the fifth graders in 1957-58 who obtained a high school diploma in 1965.<sup>9</sup>

On the other hand, a report published in 1950 by the Canadian Research Committee on Practical Education, found that out of every one hundred boys and one hundred girls who reach grade seven, 59 boys and 51 girls become dropouts. "Our findings give a conservative estimate of over 73,000 dropouts per year."<sup>10</sup>

The Financial Post reported, in May of 1960, that if the total Canadian enrollment in 1957, in the final year of high school, was traced back to the time these students first entered grade one: 65 percent completed elementary school, 57 percent entered high school, 25 percent graduated as junior matriculants, 16 percent reached senior matriculation

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<sup>9</sup> "School Dropouts," Research Division - NEA, (Wash., 1967), pp. 6-7.

<sup>10</sup> "Your child leaves school," Canadian Research Committee on Practical Education, Report No. 2, (Feb., 1950), p.16.



and 8 percent graduated as senior matriculants. In summary, 43 percent of those students who entered grade one in 1946, dropped out of school before they reached high school.<sup>11</sup>

The Cameron Royal Commission on Education, in Alberta, publised a report presented by D.B. Black, R.S. MacArthur, and J.G. Paterson (1958) and found through studying the grade IX class of June 1950 a serious dropout rate for Alberta school children. Approximately 30 percent of the students in a grade I class do not reach the end of grade IX, 60 percent do not reach the end of grade XII, 77 percent do not get a High School Diploma; about 91 percent do not get a Senior Matriculation Diploma, and 94 percent do not enter University.<sup>12</sup>

A recent study published for the Alberta Department of Youth (Hughes, 1968) reported that "one would assess the chances of graduating of the average grade school student at about fifty-fifty."<sup>13</sup>

### Problems in Dropout Accounting

Traditionally, the phrase "school dropout" connoted that this was a public school student who was unable to cope

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<sup>11</sup>"Why our children quit the school too soon," FINANCIAL POST (May 28, 1960), p. 28 [An unsigned article].

<sup>12</sup>Pupil Personnel in Alberta Secondary Schools, p. 17.

<sup>13</sup>R. Hughes, "A Study of High School Dropouts in Alberta," Alberta Department of Youth, (Sept., 1968), pp. 5-6.





with the rigors and demands of the school system, thus falling by the wayside to join the ranks of the unemployed, delinquent, unskilled, welfare seeking society. In point of fact, Daniel Schreiber (1967), a noted United States writer and researcher on the topic of school dropouts, appeared to group all dropouts together when discussing education and the current social ills of North American society.<sup>14</sup>

In the past, many methods of determining the dropout rate were implemented. The first problem was differentiation between the voluntary dropout and the involuntary dropout. Some school systems and investigators distinguished between the two and others did not. Segel and Schwarm (1957) illustrated the use of these methods and demonstrated the differing results. Consequently, according to their definition, over half of the early withdrawals could have been prevented by the school.<sup>15</sup> Furthermore, it was reported (Voss, Wendling and Elliott, 1966) that voluntary and involuntary dropouts should be further divided into those who are retarded and those who are capable.<sup>16</sup>

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<sup>14</sup>D. Schreiber, "School Dropouts," National Society Study Education Yearbook, I (1967), pp. 211-236.

<sup>15</sup>D. Segel, and O. Schwarm, "Retention in High School in Large Cities," U.S. Department of Health, Education and Welfare, Office of Education Bulletin No. 15, (Wash., D.C., 1957), p. 29.

<sup>16</sup>D. Elliott and others, "Some Types of High School Dropouts," Journal of Educational Research, LIX (December, 1966), pp. 263-268.



Tannenbaum (1966) reported that dropout surveys include all those students who leave school, whatever the reason. He states that:

"no effort is made to identify as a separate subgroup those for whom school completion, in the conventional sense, is a meaningless goal, such as the psychotic and severely neurotic, the trainable and barely educable, the hard core pre-delinquents, the marriage bound and the pregnant."<sup>17</sup>

Moreover, these deviant groups will remain a perennial source of dropouts, regardless of how much effort is exerted to keep them in school.

In another attempt at defining the school dropout, Ristow (1965) posed an interesting question. The point in question was whether the individual who returned to school a year or so later, or attended evening school or took correspondence, entered an apprenticeship program, or some other form of continuing education or training was the high school dropout who caused society's increasing number of ills?<sup>18</sup>

### Characteristics of Dropouts

In the publication, "Dropout Studies: Design and Conduct," (Schreiber, Kaplan, and Strom, 1965), a portrait

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<sup>17</sup>A. Tannenbaum, Dropout or Diploma (New York, 1966), p. 4.

<sup>18</sup>L. Ristow, "Much Ado About Dropouts," Phi Delta Kappan, XLVI (May, 1965), p. 463.





of the average school dropout was developed.<sup>19</sup> It was suggested that:

- a) he is just past his sixteenth birthday
- b) he has average or slightly below average intelligence
- c) more likely to be a boy than a girl
- d) functioning below his potential
- e) below grade level in reading
- f) academically he is in the lowest quartile
- g) slightly over-age for his grade, having failed in elementary or junior high school
- h) frequent truancy
- i) frequent discipline problem
- j) seldom participates in extra-curricular activities
- k) feels rejected by the school and in turn rejects the school
- l) his parents were dropouts, as well as his brothers and sisters

In narrowing the number of characteristics that describe the early school dropouts, the U.S.A. National Education Association listed six major characteristics in a publication by the research division (1967):

- 1) "on the average, lower intelligence,
- 2) frequent absenteeism,
- 3) non-participation in extra-curricular activities,
- 4) frequent transfers,
- 5) dislike of school and behaviour problems, and
- 6) lower socio-economic status."<sup>20</sup>

The perusal of the most recent literature on the characteristics that distinguish the school dropout from the

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<sup>19</sup>Schreiber, p. 5.

<sup>20</sup>"School Dropouts," p. 5.



individual who succeeds at school was analogous. Recent studies (Hoch, 1965; Tuel, 1966; Campbell, 1966; Schaffler, 1966; Deno, 1963; Frerich, 1967; and Scales, 1969) all reported similar characteristics, such as failure, low scholastic aptitude, low reading ability, little respect for school, low socio-economic background as factors for the early departure of youth from our schools.

### Reasons Why Youth Leave School

As was discovered in researching the literature on characteristics of the dropout, most studies carried out on why youth left school had many similarities. The reasons which dropouts gave most frequently were the desire to earn money and dissatisfaction with school.

In a representative study carried out in April, 1961, by the Tennessee State Department of Education on the causes of high school dropouts, which included the opinions of 844 teachers, principals, parents and students, the following reasons were stated as the main cause:

"Lack of adequate guidance, low mentality, lack of finances, poor interpretation of the school program, discipline, lack of adequate curriculum offerings, early marriage, physical conditions, frequent changing of school, and too many fees."<sup>21</sup>

On the other hand, a survey (Reeves, 1966) to deter-

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<sup>21</sup>G. Liddle, "Psychological factors involved in dropping out of school," Education Digest, XXVIII (1962), pp. 15-17.





mine why a student leaves school was completed and reported by the West Texas School Study Council. It referred directly to the individual in determining why he left school. The interview and questionnaire data were compiled with the help of 501 former students in thirteen West Texas communities. These students were seventh graders in 1953, 1954, and 1955, who have had the opportunity to seek their places in community life.<sup>2 2</sup>

These people indicated plainly that the urge to quit school was accelerated when the student felt that the teacher was not sensitive to his value as a person. Sixty-five percent of the respondents were parents and expressed the view that more emphasis needed to be placed on boy-girl relationships, early marriages, and the importance of teaching home and family life in the curriculum. Many respondents felt that they had themselves to blame. They indicated that they had a poor attitude, did not spend enough time on studies, found that going steady was harmful, and thought that they knew more than parents and teachers.<sup>2 3</sup>

Psychological factors appeared to play an important role in the student's decision to drop out. Gordon P. Liddle (1962), a member of a team of social scientists, studied a

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<sup>2 2</sup>B. Fallon, and B. Reeves, "Dropout talks back through a survey to determine why he left school," Texas Outlook, L. (January, 1966), pp. 17-18.

<sup>2 3</sup>Ibid.



cross-sectional group of 1,200 children as they grew from elementary school children into early adulthood in a United States midwestern city of 45,000 people. All the children in two grades of the public schools were studied, whether they stayed in school or dropped out.<sup>24</sup>

It was reported that most parents of dropouts seldom took an active interest in what their children were doing in school. Because of peer group influence, many could not compete with their more informed classmates and were often laughed at and ridiculed for displays of lack of knowledge. Those individuals who were below average in social and personal adjustment often had the feeling of rejection, isolation, and defeat, which almost always led to a lack of acceptance of, and respect for, others. Moreover, it was reported that lower class children wanted adult economic status, which they couldn't attain, immediately, by remaining in school.<sup>25</sup>

### The Fate of School Dropouts

Comprehensive follow-up studies comparing school dropouts and school graduates were not nearly as numerous as studies in other areas.

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<sup>24</sup>G. Liddle, "Psychological factors involved in dropping out of school, "Education Digest, XXVIII (1962), pp. 15 - 17.

<sup>25</sup>Ibid.





The major problem in conducting a study of this nature is the difficulty in locating and obtaining responses from the subjects sampled. Reports on various investigation techniques indicate that those individuals who are unsuccessful in adult life tend not to respond to questionnaires and are hesitant to grant personal interviews.

In an attempt to secure information in the post-high school employment, education, and training of school dropouts from selected senior high schools in Los Angeles City Unified School District, Wilstach (1964) selected a sample of 221 dropouts. Of these 221 dropouts, 159, or approximately 72 percent, were accounted for by interviews completed approximately three months after they had withdrawn from school. By checking the 221 names with the Los Angeles County Probation Department, it was discovered that 20 percent of the dropouts had been or were on probation, and 6 percent had been on social assistance rolls. Of the 159 dropouts, 49 were once again enrolled in school and 26 of these were enrolled in the same school from which they had withdrawn.<sup>26</sup> This points to the major problem of accounting procedures to determine dropout rates accurately.

During the week preceding the interview, 68 were employed. Of these 68 employed, 35 were unskilled workers,

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<sup>26</sup>I. Wilstach, "Follow-up study of high school dropouts: A progress report," California Education, I (April, 1964) p. 12.



10 were in semi-skilled jobs, 2 had skilled positions, 4 were in sales, 8 held clerical positions, and 9 were employed in service industries. However, the bulk of the dropouts indicated that their future plans were such that they would require additional education or training.<sup>27</sup>

The information obtained was the first investigation of a three year study. The three month follow-up is a rather limited period to draw conclusions, but unfortunately the results of the second and third follow-up studies could not be located.

In Alberta, Vincent and Black (1966) conducted a follow-up study in the Calgary region to determine the vocational success of a group of grade eleven dropouts from three Alberta public high schools six years after they had left school. At the time of withdrawal each subject of the sample had acquired a minimum of 70 high school credits, which was the equivalent to the completion of grade eleven in this province. One hundred and fifty-four students met these qualifications.<sup>28</sup>

Of the 154 dropouts selected, 38 were found to be living outside Calgary, 31 were untraceable, 83 were contacted, and 74 out of the 83 contacted were available for interviews. From a selected sample of 154 dropouts, data were

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<sup>27</sup>Ibid.

<sup>28</sup>Vincent and Black, p. 315





available from only 48 percent of the total group. However, responses were received from 89 percent of those subjects actually located and contacted.<sup>29</sup>

The marital status of the group was found to be as follows: 52 of the 74 were married with 33 having children; one was divorced. Intellectually, only 13 out of 74 had an intelligence quotient less than 100. Moreover, 53 fell in the 100-120 range of intelligence.<sup>30</sup>

As far as continuing education was concerned, all but 16 had taken further education or training. The breakdown was as follows: 15 attended the Southern Alberta Institute of Technology, 8 enrolled in the semester system at a local college, 8 entered university, 6 took correspondence or company courses, 5 entered apprenticeship programs, and 3 attended night school. The interviewers received permission from 56 subjects to interview the employers for their appraisal. Thirty-nine of the 56 were considered likely to advance. It was discovered that the individual's personality, consciousness, and industriousness were of equal or of greater importance than educational background.<sup>31</sup>

Vincent and Black concluded that the case for this particular dropout sample as swelling the ranks of the

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<sup>29</sup> Ibid., p. 314.

<sup>30</sup> Ibid., p. 315.

<sup>31</sup> Ibid., p. 316.



nation's unemployed was not clearly justified. Furthermore, they concluded that the results of the sample indicated job stability among this dropout group. It must be kept in mind that this was a unique group of dropouts, for they all had the equivalent of grade XI or better. But this merely exemplified the fact we cannot label all early school dropouts as undesirables and burdens to society.<sup>32</sup>

From DeKalh Illinois, Murk (1960) attempted to determine the vocational endeavours of high school dropouts. From a sample of 72 students, a very limited return of 28 (approximately 38 percent) was experienced. The results reported for vocational success found the boys employed within one month, with the girls taking slightly longer. The type of employment usually was that which required the minimum amount of education. However, due to the limited amount of data one cannot generalize as to the success of the school dropout.<sup>33</sup>

A study in the Kansas area investigated the relationship between participation and non-participation in extra-curricular activities for high school students. A questionnaire was used to secure data from an equal number of dropouts and graduates. Each dropout was matched with a randomly

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<sup>32</sup> Ibid., pp. 326-329.

<sup>33</sup> V. Murk, "Follow-up study on students who drop out of high school," National Association of Secondary School Principals Bulletin, XLIV (February, 1960), pp. 73-75.





selected graduate. It was reported that 68 percent of the 212 dropouts did not participate in a single activity. For the males and females, the percentages were 82 percent and 46 percent respectively. There was a significant difference in the number of activity leadership roles for dropouts and graduates. Ninety-nine percent of the dropouts held no leadership roles as compared to 52 percent of the graduates.<sup>3 4</sup>

Berry and Nelson (1966) conducted a study with a sample of 3,731 United States Marines to determine the success or non-success of those who were high school graduates and those who were dropouts. Success and non-success was determined by evidence of satisfactory or unsatisfactory adjustments to the corps. Men were placed in the non-success group if they met either one of the two following criteria: (a) evidence that they had been administrative or disciplinary problems to the corps although they were still on active duty at the end of two years, and (b) discharge from the Marine Corps.<sup>3 5</sup>

The sample was divided into three groups, those who graduated from high school, those who completed the General Educational Development Program after enlistment, and

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<sup>3 4</sup>J. Bell, "Comparison of dropouts and non-dropouts on participation in school activities," Journal of Educational Research, LX (February, 1962), pp. 248-251.

<sup>3 5</sup>N. Berry, and P. Nelson, "Fate of School Dropouts in the Marine Corps," Personal and Guidance Journal, XLV, (September, 1966), pp. 20-23.



thirdly, the high school dropouts.

Table I  
SUCCESS RATE IN THE MARINE CORPS FOR  
HIGH SCHOOL GRADUATES AND DROPOUTS

GROUP	H.S.	G.E.D.	Non-G.E.D.	SUM
Success (No.)	1904	292	745	2941
Column %	90.96	73.92	59.93	78.82
Non-success (No.)	189	103	498	790
Column %	9.03	26.07	40.06	21.17
TOTAL	2093	395	1243	3731

Chi-Square = 448.317 with 2 degrees of freedom, probability  
> .001

The results supported by the hypothesis of the study that school graduates were more successful than dropouts before entering the corps, and those school dropouts who entered the G.E.D. program were more successful than those who did not. The findings pointed out that the receiving of a diploma was not as important as the completion of the educational cycle before enlistment. It was further suggested that the difference between the high school graduate and the dropout tied in the character trait which might be called by the unscientific term, "stick-to-itiveness."<sup>36</sup>

It might also be added that the regimented life of

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<sup>36</sup> Ibid.





the marine was much different from that of the civilian. Since many of today's youth are questioning the morality of wars, it is not surprising that those students who found it difficult to conform to the school system (dropouts) also were less successful in falling into the military mould of the armed forces.

The following follow-up study was one which was investigated very thoroughly by the writer. Richard J. Mueller (1964), of the University of Iowa, conducted a follow-up comparison of post high school success of a matched group of high school dropouts and graduates. He compared post high school vocational experiences, citizenship, recreational pursuits, and certain other attributes of high school dropouts who were equated by groups with graduates according to age, sex, academic ability, and socio-economic background. This paper provided comparisons among matched groups of young adults, all of whom entered the ninth grade in numerous high schools in Iowa during the years 1955 and 1956. Thus, the dropouts in this sample were out of high school from five to seven years and the graduates three to four years.<sup>37</sup>

The two groups were compared on the following post high school experiences and attitudes:

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<sup>37</sup>R. Mueller, "A follow-up comparison of post high school success of matched high school dropouts and graduates," Doctoral Thesis, Iowa: State University of Iowa, 1963, (Micro-film).



1) Vocational experiences, 2) civil participation, 3) church participation, 4) leisure time activities, and 5) attitudes towards high school curricula, guidance programs, extra-curricular participation, part time employment while in school, and the United Nations.<sup>38</sup>

A total of 898 students were taken from registers of dropouts and graduates of eighteen Junior and Senior High Schools in the eastern Iowa area. One-hundred and fifty-six individuals could not be traced. The percentages of responses from the remaining 742 individuals were as follows:

	Number	Non-respondents	Respondents	Percent
DROPOUTS	334	161	173	50.1
GRADUATES	408	155	253	62.0

Furthermore, 8.2 percent of the non-respondent group were contacted and filled out a questionnaire with the investigator present.

Of 295 separate analyses of variances, there were only forty-five differences that were statistically significant. Twenty of those differences, all in favor of the graduates, were on four variables: level of occupational status, participation in church activities, library visits, and attitudes towards extra-curricular participation when in high school.<sup>39</sup>

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<sup>38</sup> Ibid.

<sup>39</sup> Ibid.





Following is a resume of the results:

More dropouts were married and less likely to have successful marriage when compared with the graduates. But it must be remembered that the dropouts were married longer. Graduates reached a higher level of occupational status, but with the exception of one single group, dropouts and graduates in the various socio-economic and ability levels were earning about the same amount of pay. Once again it must be noted that the dropouts were working longer. No significant difference resulted in the number of months of education required, except for the difference between the high socio-economic and high ability level of dropouts and graduates. Graduates tended to enroll in business education and dropouts in correspondence school. Few graduates attended college compared to college bound students in general. Very little difference was found in civil participation, but the dropouts appeared less likely to attend church. No differences were found in recreational pursuits and little difference occurred in utilization of library facilities. Both had almost the same opinion of the value of at least part of the high school's offering, that is school courses, but the dropouts were more dissatisfied with school programs offered. There was a significant difference in extra-curricular participation in favor of the graduates. Dropouts were more prone to advocate part time work. About one-half the boys, graduates and dropouts, owned a car and 11 percent indicated that it caused financial difficulty.<sup>40</sup>

Generally the findings of Mueller's study point to the fact that differences between the dropout and graduate, at least during the early years out of school, may not be as great as claimed by many writers on the subject.

### Summary

After reviewing available research concerning school dropouts, long range effects of dropping out of school pose

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<sup>40</sup> Ibid.



many interesting questions and contradictions. The characteristics of dropouts and the identifying procedures have appeared to be researched extensively and the criteria for these studies well established. This type of information is readily available from departments of education.

However, research seemed to be less reliable when attempts were made to contact former dropouts, as well as graduates, and simply find out how they are coping with adult life five, ten, and fifteen years after leaving school. However, when these follow-up studies are conducted the hypothesis that dropouts will be less successful in adult life has not been supported.

Available evidence on the fate of the school dropout is inconclusive and many assumptions made about dropouts are unjustified. Hence, this study attempts to provide more substantial evidence as to the fate of high school dropouts and graduates, and also find out if dropping out of school means dropping out of society.





## CHAPTER III

### DESIGN OF THE STUDY

In an attempt to gain an improved conception about the long term effects of high school graduation and early withdrawal, two groups of students who formerly attended school in the County of Strathcona were chosen for a follow-up study. The two groups chosen consisted of males and females who wrote the Grade IX Departmental Examinations in 1963. The subjects selected would have been out of school anywhere from three to seven years, giving them a substantial period of time to become established in the adult world.

#### Sample and Population

The entire sample of students selected for the study attended County of Strathcona schools during their Grade IX school year. The selection of the subjects was made from the confidential returns of the grade IX departmental examinations written in 1963. The number of students who successfully completed their Grade IX term totalled 309.

The dropout group, which totalled 59, included every student who left the County of Strathcona school system and was not known to have transferred to another high school. By most standards the dropout rate was low, however, two factors to take into consideration were first, that this number did



not include those students who withdrew prior to grade IX, and second, the population that the sample was drawn from did not include those students who transferred into the County of Strathcona during their high school years.

Comparatively, a stratified random sample of 62 high school graduates were selected from the same 1963 grade IX graduation list. Of these sixty-two students, thirty-seven were males and twenty-five were females.

In order to determine which students discontinued their public school education and were not known to transfer to another school, investigations into school cumulative records, the high school's personal files, and official School Board records, were thoroughly conducted before the decision to include the subject in the sample was finalized.

The school dropout was a student who did not meet the requirements for graduation from high school as set forth by the Alberta Department of Education. On the other hand, the high school graduate was a student who received a general high school diploma or a senior matriculation diploma.

#### Instrument: Follow-up Questionnaire

Once the two groups were selected, the desired information was obtained via questionnaire. The questionnaire adopted was, in part, identical to the one utilized by Richard J. Mueller (1964), of the University of Iowa, in his Doctoral Dissertation titled "A Follow-up Comparison of Post





High School Success of Matched High School Dropouts and Graduates." However, portions pertaining to military service, church attendance, and government activities were omitted. In addition, reference was made to questionnaires used by Vincent and Black (1966), Hughes (1968) and Scragg (1968).

The information obtained by the questionnaire was broken down into 20 independent variables. Dependent variables, age, achievement, mental ability, and sex were obtained from each subject's cumulative record file along with socio-economic status and the Grade IX Departmental Examination results. The areas deemed important in the study were marital and family status, economic and vocational achievement, continuing education patterns, and opinions and thoughts about past school experiences.

#### Administration of the Questionnaire

The telephone numbers and addresses for each subject selected for the study were obtained from school records, telephone directories, Henderson's Directory, friends and relatives, school personnel, and former students. When the place of residence for each of the subjects was located, personal contact was established. Telephone contact was made if the subject was known to reside in Edmonton or within a radius of fifty miles. For those individuals who were definitely known to reside outside Alberta or Canada, a questionnaire was mailed. Accompanying each questionnaire



was a covering letter explaining the nature and purpose of the study. Along with each questionnaire was a self-addressed stamped envelope to facilitate return. One month after the first mailing a second letter, or reminder, was sent to those who failed to reply.

From the entire sample of 122 dropouts and graduates, one person was dead, 18 dropouts were impossible to locate, and seven graduates were not located. Ten of the 18 dropouts, whose residence could not be located, were girls. Therefore, 96 questionnaires were mailed and 86 were returned. However, two of the 86 questionnaires could not be used in the study because of improper methods of responding. The data used in compiling the results were from 87.5 percent of those subjects who were mailed questionnaires. The most difficult group to locate were the girls who married and had changed their names.

### Analysis of Data

The data collected during the survey were analyzed by frequency tabulations and proportions. For the most part chi-square was used to test differences among proportions. However, in some instances two-way analysis of variance was used.

Item responses were compared in terms of male dropouts and graduates, female dropouts and graduates, and finally male and female. One problem encountered was that in certain instances, especially for females, the cell





frequencies were too small to apply chi-square, consequently for many cases the findings were simply reported in numbers and by percentages.



## CHAPTER IV

### RESULTS

Four major hypotheses were constructed for the purpose of comparing experiences and accomplishments of students who graduate from high school and those who leave prior to graduation.

Since success in western society is basically measured in terms of one's educational, vocational, and economic achievements, three of the hypotheses concern these dependent variables. The fourth hypothesis to be tested concerned the opinions the dropouts and graduates still retain regarding their past school experiences.

#### Hypothesis I

Hypothesis I stated: There is no difference in their continuing education patterns.

To test this hypothesis, the male and female dropouts and graduates were compared by the application of a chi-square analysis according to the following dependent variables: (a) enrollment in educational programs, (b) types of programs, (c) amount of formal training obtained, (d) grade IX achievement and types of education sought, (e) necessity of the High School Diploma, and (f) the reasons for not registering in an educational program after leaving school.





Program Enrollment

Seventy percent of the male and female dropouts and graduates undertook additional educational training beyond that obtained at the high school level. Tables 2a and 2b indicate that the dropouts attempted to up-grade themselves to a greater extent than their counterparts, yet it was not that significant.

On the other hand, when a comparison was carried out by sex, both male groups combined, enrolled in educational programs to a greater extent than did the females (Table 2c).

Frequently throughout the chapter the female graduates appeared to be the most satisfied group departing from high school.

Table 2a  
MALE ENROLLMENT IN EDUCATIONAL PROGRAMS  
AFTER HAVING LEFT HIGH SCHOOL

GROUP	n	YES		NO	
		No.	%	No.	%
Dropouts	23	20	87.0	3	13.0
Graduates	30	23	76.7	7	23.7
TOTAL	53	43	81.1	10	18.9

Chi-Square = 0.1354 with 1 degree of freedom, probability > .05



Table 2b

FEMALE ENROLLMENT IN EDUCATIONAL PROGRAMS  
AFTER HAVING LEFT HIGH SCHOOL

GROUP	n	YES		NO	
		No.	%	No.	%
Dropouts	10	6	60.0	4	40.0
Graduates	21	10	47.6	11	52.4
TOTAL	31	16	51.6	15	48.4

Chi-Square = 0.551 with 1 degree of freedom, probability > .05

Table 2c

MALE AND FEMALE ENROLLMENT IN EDUCATIONAL  
PROGRAMS AFTER HAVING LEFT HIGH SCHOOL

GROUP	n	YES		NO	
		No.	%	No.	%
Males	53	43	81.1	10	18.9
Females	31	16	51.6	15	48.4
TOTAL	84	59	70.2	25	29.8

Chi-Square = 6.806 with 1° of freedom, probability < .05

Programs Enrolled In by Dropouts

The male dropouts entered a variety of educational programs with apprenticeship training (trade training) and



technical training (the Northern Alberta Institute of Technology) constituting the largest portion, 57.9 percent.

Other categories included agricultural college, correspondence school, and junior college. The category "OTHER," Table 2d, included such programs as radio announcing, self-taught accounting, and psychiatric nursing.

Of the six dropout girls who enrolled in some educational program, two entered business college, one undertook a "blue print" course, and one registered in Alberta College. The remaining two enrolled in evening credit and private school.

#### Programs Enrolled In by Graduates

Approximately 43.5 percent of the graduate boys entered a university program as compared to not one dropout male. Similarly, 43.5 percent entered trade training or a technical program. The remaining 13 percent registered in evening credit, private school, and one lad entered the Registered Industrial Accountant Program.

The female graduates constituted the group with the lowest average percentage of continued educational development after having left high school. Table 2d illustrates that less than one-half the girls undertook additional education or training. Only 20 percent of the girls entering continuing education programs entered at the university level. Again the dropouts failed to have anyone attend at





the university level.

There was definite contrast between the programs chosen by both sexes. The girls tended to enter the "female" type occupational preparation programs - business education, office work, etc. The major difference between the males was that the graduate high school students were the only group to register at a university.

#### Length of Continuing Education

Since it was virtually impossible to compare the graduates and dropouts by the types of programs they enrolled in, due to the different nature of each individual program, the amount of training obtained was analyzed. By comparing the amounts, it was possible to infer the type. For example, in trade or apprenticeship training the usual maximum length of formal classroom instruction time was eight months as compared to eight to sixteen months at a technical institute, and 21 months to 28 months at a university. These amounts are usually required before a certificate, diploma, or degree is awarded.

Table 2e illustrates the intervals (6 months per interval) and the number of people who have obtained the amount of education indicated by that interval. Through a chi-square analysis no difference was found between the male dropouts and graduates. However, the number of graduates did surpass the number of dropouts at the higher end of the



Table 2d

CONTINUING EDUCATION PROGRAMS FOR MALE AND FEMALE HIGH SCHOOL GRADUATES AND DROPOUTS

GROUP	n	CONTINUING EDUCATION PROGRAM PATTERNS								
MALE		Agricul- tural College	Trade Train.	Corres- pondence	Evening Credit	Junior College	Tech. (NAIT)	Univer- sity	Private Schools	Other
Dropouts	20	1	6	1	0	2	5	0	0	5
Graduates	23	0	4	0	1	0	6	10	1	1
Sub-Total	43	1	10	1	1	2	11	10	1	6
FEMALE										
Dropouts	6	0	0	0	1	0	0	0	2	3
Graduates	10	0	0	0	5	1	1	2	0	1
Sub-Total	16	0	0	0	6	1	1	2	2	4
TOTAL	59	1	10	1	7	3	12	12	3	10





scale. Because there were still a number of graduates still attending a university, and since the probability illustrated by Table 2e is 0.16 (.05 or less is required for statistical significance) upon completion of their programs a difference might in fact occur between the dropouts and graduates.

Table 2e

THE AMOUNT OF EDUCATION OBTAINED BY MALE DROPOUTS  
AND GRADUATES AFTER HAVING LEFT HIGH SCHOOL

GROUP	n	AMOUNT OF EDUCATION IN MONTHS				
		1-6	7-12	13-18	19-24	Over 24
Dropouts	20	5	7	3	3	2
Graduates	23	2	6	1	7	7
TOTAL	43	7	13	4	10	9

Chi-Square = 6.563 with 4 degrees of freedom, probability > .05

The female groups followed much the same pattern as the males. Table 2f illustrates the number in each of the six month intervals.

Chi-square analysis was not calculated due to the limited number of subjects in most of the cells (Dixon and Massey, p. 238).

Fifty percent of the dropouts and graduates obtained one to six months of education after having left high school. Similar to the graduate males, the graduate females had a



larger percentage of people at the upper end of the scale. But in comparison with the boys, the percentage was smaller.

Table 2f

THE AMOUNT OF EDUCATION OBTAINED BY FEMALE DROPOUTS  
AND GRADUATES AFTER HAVING LEFT HIGH SCHOOL

GROUP	N	AMOUNT OF EDUCATION IN MONTHS				
		1-6	7-12	13-18	19-24	Over 24
Dropouts	6	3	2	1	0	0
Graduates	10	5	2	0	1	2
TOTAL	16	8	4	1	1	2

Grade IX Achievement and Length of Continuing Education

The achievement and length of continuing education for the boys is illustrated in Table 2g. Furthermore, a graphical representation appears in Table 2h. Once again, analysis could not be performed for the females because of the limited numbers. Only gross comparisons, using percentages, were made between the males and females.

The boys covered the gamut in comparing grade IX achievement, by stanines, and continuing education patterns. Only one girl, or six percent, with a stanine average of 4 or less, entered any type of program at all. Contrastly, 15 or 35.7 percent of the males who achieved an average stanine of 4 or less entered some type of continuing education



program. An observation worthy of mention, was that nine out of those 15 undertook apprenticeship (trade or on-the-job training) or technical training.

The lower achievers entered programs requiring shorter training periods. As illustrated in Table 2g, there was no statistical difference between the dropouts and the graduates. However, as noted earlier, many of the graduates were currently attending post-high school educational institutions and once they complete their programs a significant difference could possibly occur.

Table 2g

GRADE IX ACHIEVEMENT AND THE LENGTH OF EDUCATION FOR MALE DROPOUTS AND GRADUATES AFTER HAVING LEFT HIGH SCHOOL

GROUP		n	AMOUNT OF EDUCATION IN MONTHS				
Grade IX Achievement			1-6	7-12	13-18	19-24	Over 24
STANINES	1	1	1	0	0	0	0
	2	0	0	0	0	0	0
	3	6	3	2	0	1	0
	4	9	2	4	1	2	0
	5	8	0	4	0	3	1
	6	11	1	2	3	2	3
	7	3	0	1	0	0	2
	8	2	0	0	0	1	1
	9	3	0	0	0	1	2
TOTAL		43	7	13	4	10	9

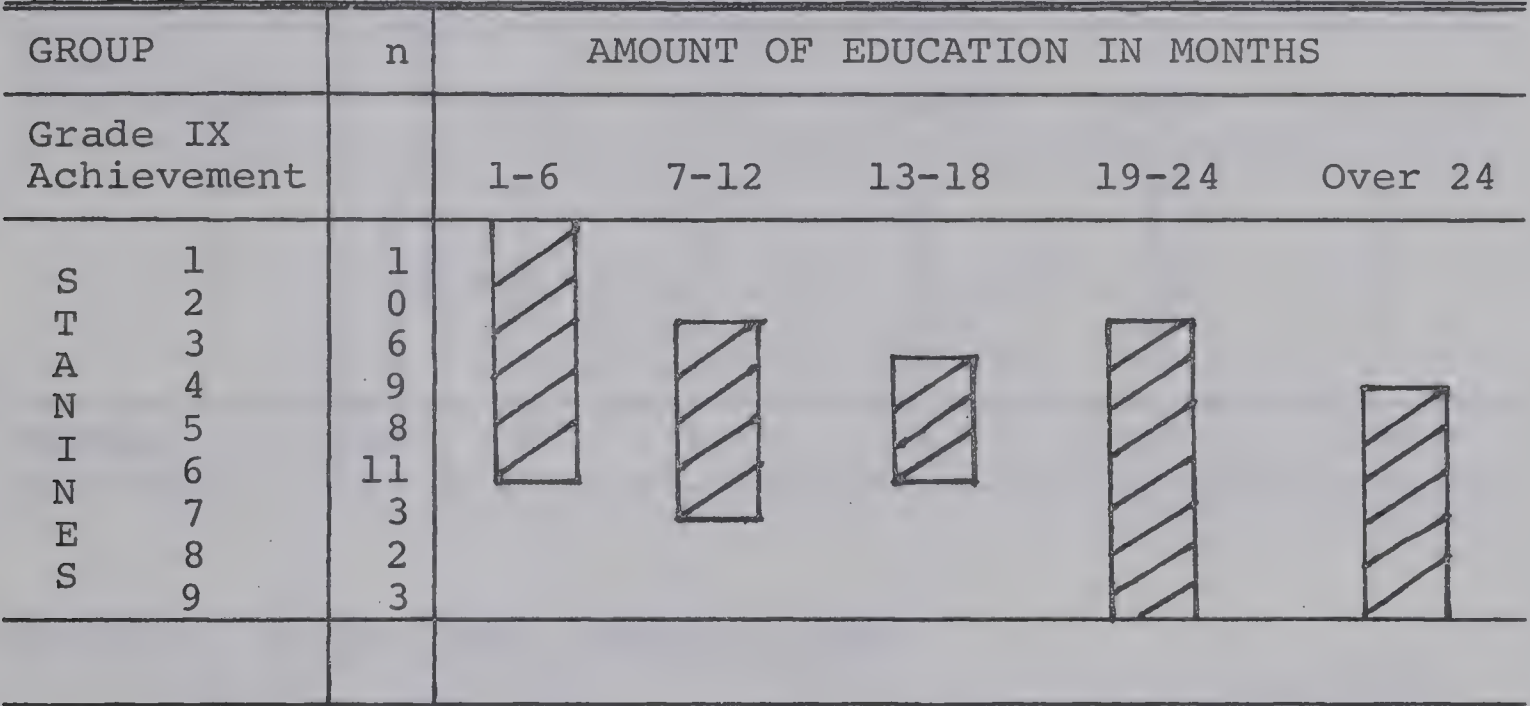
Chi-Square = 33.891 with 28 degrees of freedom, probability > .05





Table 2h

GRAPHIC REPRESENTATION OF GRADE IX ACHIEVEMENT  
THE LENGTH OF EDUCATION FOR MALE DROPOUTS AND  
GRADUATES AFTER HAVING LEFT HIGH SCHOOL



Following in Table 2i is a break-down in amount of education after leaving school and grade IX achievement for females. In contrast with the males, where the achievement ranged from stanine one to nine, the range for the girls was only four to eight, inclusive.



Table 2i

GRADE IX ACHIEVEMENT AND THE LENGTH OF EDUCATION FOR  
FEMALE DROPOUTS AND GRADUATES AFTER HAVING LEFT HIGH SCHOOL

GROUP	n	AMOUNT OF EDUCATION IN MONTHS				
Grade IX Achievement		1-6	7-12	13-18	19-24	Over 24
4	1	0	0	1	0	0
5	6	3	3	0	0	0
6	3	2	0	0	1	0
7	3	1	1	0	0	1
8	3	2	0	0	0	1
TOTAL	16	8	4	1	1	2

### Necessity of the High School Diploma

The dropout sample in this study consisted of 23 male dropouts and 10 female dropouts, out of a total possible of 59. From the data received, four out of the 23 male dropouts and one out of the 10 female dropouts obtained their high school diploma after having left high school. By percentage, 15.2 percent of the dropouts in this study eventually obtained their diploma.

Although three-quarters of all four groups responded positively to the importance of the high school diploma, a definite difference of opinion was discovered when the dropouts and graduates of both sexes were compared. The numbers and percentages illustrated in Tables 2j and 2k indicate that the high school dropout did not consider a diploma as





important as did his counterpart, the graduate. Among the dropouts, males and females, the males considered the importance of the diploma to a lesser extent than did the females.

Again the lack of subjects in the female cells prevents the chi-square analysis, hence the difference can only be observed.

Table 2j

MALE OPINION ON THE NECESSITY OF  
A HIGH SCHOOL DIPLOMA

GROUP	n	NECESSITY OF A DIPLOMA			
		YES		NO	
		No.	%	No.	%
Dropouts	23	11	47.8	12	52.2
Graduates	30	25	83.3	5	16.7
TOTAL	53	36	68.0	17	32.0

Chi-Square = 7.534 with 1 degree of freedom, probability < .05

Table 2k

FEMALE OPINION ON THE NECESSITY OF  
A HIGH SCHOOL DIPLOMA

GROUP	n	NECESSITY OF A DIPLOMA			
		YES		NO	
		No.	%	No.	%
Dropouts	10	6	60.0	4	40.0
Graduates	21	21	100.0	0	0.0
TOTAL	31	27	87.0	4	13.0



### Reasons for Not Obtaining Education After High School

From an over all total of 84 subjects used in this survey only 25, or 30 percent, did not undertake any continuing education after having left high school.

The reasons were varied, but the largest category was "no interest" which accounted for 72 percent of the total. The group giving the reason of "no interest" was largely filled with female graduates. This is a pattern that occurs frequently in the survey. The female graduates appeared to be the most satisfied group with regards to attitude towards their past high school experiences and the usefulness of the part of school curriculum they happened to be involved with. Marriage accounted for 16 percent of the reasons given by females. In two instances, or 8 percent, the drop-out and graduate boys had to go to work. Only one girl out of both the male and female group indicated that she couldn't obtain further education because of insufficient funds.

Table 2L illustrates a summary by categories of reasons for not pursuing a continuing education programs.



Table 2L

THE REASONS MALE AND FEMALE GRADUATES AND  
DROPOUTS GAVE FOR NOT PURSING A  
CONTINUING EDUCATION PROGRAM

GROUP	n	Insufficient Funds	Marriage	Not Interested	Had to Work
MALE					
Dropouts	3	0	0	2	1
Graduates	7	0	0	6	1
FEMALE					
Dropouts	4	1	2	1	0
Graduates	11	0	2	9	0
TOTAL	25	1	4	18	2

### Summary

A major portion (70 percent) of the dropouts and graduates followed a continuing education program. By comparison, more dropouts than graduates, and more males than females, continued their education after having left high school. The length of the program enrolled in was dependent on the type. No dropouts of either sex enrolled in a university program. On the other hand, 43 percent of the males and 20 percent of the females who entered a continuing education program did so at the university level after having graduated from high school.

The male dropouts usually chose technical or trade





training. Both groups of females tended to enter short term specialized training which usually involved clerical work.

Grade IX scholastic achievement was closely connected with the type of continuing education pursued. The dropout achieved at a lower level than the graduate, and tended to enter programs which demanded less rigorous academic requirements.

For all groups surveyed, the opinion on the necessity of the high school diploma differed significantly between the graduates and the dropouts. It appeared that the dropouts located suitable educational programs to meet their interests and needs without a high school diploma. In other words, slightly more than 50 percent negated the necessity of the high school diploma.

### Hypothesis II

Hypothesis II stated: There is no difference in their vocational achievements.

The second hypothesis was tested for the male and female graduates and dropouts by comparing their (a) marital status, (b) employment rate, (c) amount of income, (d) income satisfaction, (e) job satisfaction, and (f) rate of unemployment.

### Marital Status

At the time of the survey, 43.4 percent of the males



and 64.5 percent of the females had been married. Using a chi-square analysis neither the males nor the females varied significantly in their rate of marriage.

By comparing the percentages in Table 3a and Table 3b, one could see a definite tendency for the girls to marry more quickly than the boys.

Table 3a  
MALE MARRIAGE RATE

GROUP	n	MARRIED			
		YES		NO	
		No.	%	No.	%
Dropouts	23	13	56.5	10	43.5
Graduates	30	10	33.3	20	66.7
TOTAL	53	23	43.4	30	56.6

Chi-Square = 1.98 with 1 degree of freedom, probability > .05

Table 3b  
FEMALE MARRIAGE RATE

GROUP	n	MARRIED			
		YES		NO	
		No.	%	No.	%
Dropouts	10	7	70.0	3	30.0
Graduates	21	13	61.0	8	38.0
TOTAL	31	20	64.5	11	35.5

Chi-Square = 0.002 with 1° of freedom, probability > .05





The graduates and dropouts were compared by the number of years of marriage. The range in the number of years of marriage was one to five years, inclusive. Because of the limited numbers in the cell, a chi-square analysis was not done.

Tables 3c and 3d indicate the numbers of years each of the subjects had been married. The dropout males would appear to have been married for a slightly longer period than the graduate males. On the other hand, the dropout girls were definitely married more years than their counterparts. In fact marriage could have been the reason some of the girls left school prior to graduation.

Table 3c  
NUMBER OF YEARS OF MARRIAGE FOR MALES

GROUP	n	YEARS OF MARRIAGE									
		One		Two		Three		Four		Five	
Dropouts	13	7	53.8	3	23.1	2	15.4	1	7.7	0	0.0
Graduates	11	8	72.7	1	9.1	1	9.1	0	0.0	1	9.1
TOTAL	24	15	62.5	4	16.7	3	12.5	1	4.2	1	4.2

Table 3d  
NUMBER OF YEARS OF MARRIAGE FOR FEMALES

GROUP	n	YEARS OF MARRIAGE									
Dropouts	8	0	0.0	3	37.5	1	12.5	3	37.5	1	12.5
Graduates	13	5	38.5	4	30.8	4	30.8	0	0.0	0	0.0
TOTAL	21	5	23.8	7	33.3	5	23.8	3	14.3	1	4.8



As of July 1st, 1970, 90.0 percent of those students who married were still married to the same spouse. From the grand total of 44 marriages, 4.55 percent of the male dropouts were separated. Similarly, one of the graduate girls was separated and one was divorced.

Fifty percent of the married couples had one or more children.

Table 3e illustrates that slightly less than one half of the married girls were employed outside the home besides looking after household duties. Although the proportions seem that they would be statistically different, they were not. For the small cell frequencies involved, the probability was more than .05.

Table 3e

## THE NUMBER OF EMPLOYED MARRIED WOMEN

GROUP	n	EMPLOYED			
		YES		NO	
		No.	%	No.	%
Dropouts	8	2	25.0	6	75.0
Graduates	13	8	61.5	5	38.5
TOTAL	21	10	47.6	11	52.4

Chi-Square = 1.388 with 1 degree of freedom, probability > .05



### Occupational Status

Three-quarters of all the students surveyed were employed full-time. Almost identical percentages (76 percent) of the female and male graduates were employed in contrast with 87 percent of the male dropouts and 40 percent of the female dropouts. One-half of the female dropouts were occupied as housewives, whereas 23.8 percent of the female graduates occupied the same position.

Slightly less than one-quarter of the male graduates were still occupied as students. These people were still attending or had just graduated from university.

Unemployment was not a serious problem for the dropouts, for only one of the male dropouts was unemployed at the time of the survey. None of the graduates reported being unemployed involuntarily. Table 3f presents a complete summary of the occupational status for every member who participated in the survey.

### Average Income

The average income for each group was calculated for those people who were employed full or part time. The students who were employed at temporary summer jobs were not included.

The income reported by those people who held permanent jobs was in \$50.00 intervals. In calculating the "mean salary," the mid-point of the interval was used.





Table 3f  
OCCUPATIONAL STATUS FOR HIGH SCHOOL GRADUATES AND DROPOUTS

GROUP	n	OCCUPATIONAL STATUS									
		Employed Full-time		Employed Part-time		Unemployed		Housewife		Student	
		No.	%	No.	%	No.	%	No.	%	No.	%
MALE											
Dropouts	23	20	87.0	0	0.0	1	4.3	0	0.0	2	8.7
Graduates	30	23	76.7	0	0.0	0	0.0	0	0.0	7	23.3
FEMALE											
Dropouts	10	4	40.0	1	10.0	0	0.0	5	50.0	0	0.0
Graduates	21	16	76.2	0	0.0	0	0.0	5	23.8	0	0.0
TOTAL	84	63	75.0	1	1.2	1	1.2	10	11.9	9	10.7



Through the application of the analysis of variance, no significant difference was found in the average salaries earned by the dropouts and graduates, male or female. However, when grouped by sex, the males were earning significantly higher salaries than the female dropouts and graduates.

Reference can be made to Figure 1 for a graphic illustration of the average salaries earned by the male and female dropouts and graduates. The male dropout's and graduate's average income was \$530.00 and \$473.00 per month, while the female dropouts and graduates earned \$340.00 and \$373.00 per month.

When the dropout and graduate boys were compared according to the amount of money they earned, it should be kept clearly in mind that approximately one-quarter of the male graduates had not become regular wage earners. These are university students, who upon completion of their university program, will likely command starting salaries of approximately \$550.00 to \$650.00 per month.





Figure 1

AVERAGE INCOME FOR MALE AND FEMALE  
HIGH SCHOOL DROPOUTS AND GRADUATES

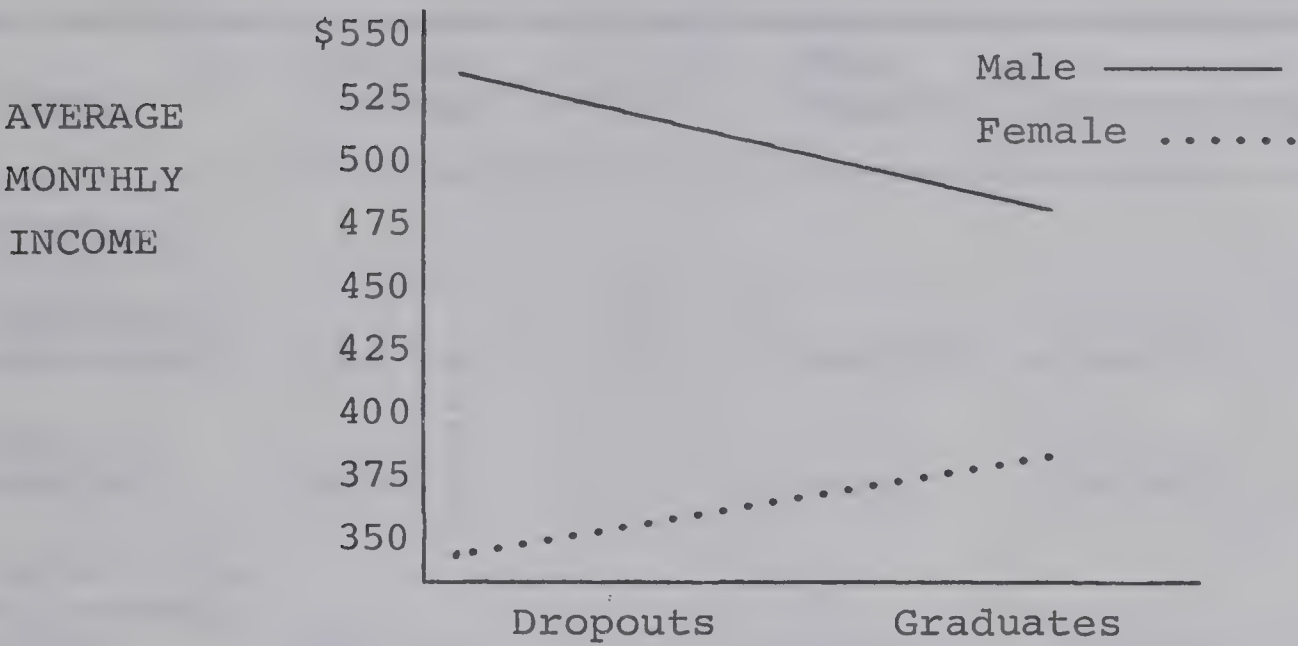


Table 3g

CELL MEANS MATRIX FOR AVERAGE INCOME

	n	Male	n	Female
Dropouts	18	530.55	5	340.00
Graduates	20	473.75	16	373.43

Note: The n's reported here are smaller for the male graduate and dropout than reported in Table 3f. The reason was that five of the males who were employed full-time were on the farm and did not report a monthly income.



Table 3h

ANALYSIS OF VARIANCE TABLE OF AVERAGE MONTHLY INCOME  
FOR MALE AND FEMALE DROPOUTS AND GRADUATES

SOURCE	SUM OF SQUARES	D.F.	MEAN SQUARES	F-RATIO	PROBABILITY
BETWEEN					
Dropouts & Graduates	1487.00	1	1487.00	0.096203	0.757609
Male & Female	229874.0	1	229874.0	14.871995	0.000304*
Interaction Male-Female x P.O. + Graduates	22129.0	1	22129.0	1.431664	0.236625
Error	850126.0	55	15456.8		

\* Probability < .05

### Employment Satisfaction

Each employed person was asked to indicate whether he/she (a) "like his present job," (b) "didn't like it but had to put up with it," or (c) "disliked it very much." For purposes of analysis, items 'b' and 'c' were combined; (refer to Tables 3i and 3j).

Slightly more than 90 percent of all four groups combined indicated they were satisfied with their present occupation. Furthermore, there was no significant difference between male groups or female groups. (The numbers for the



female dropouts were extremely small.)

At this point in their life, both graduates and dropouts found their work quite satisfying.

Table 3i

## MALE JOB SATISFACTION

GROUP	n	SATISFIED		DISSATISFIED	
		No.	%	No.	%
Dropouts	20	18	90	2	10
Graduates	23	20	87	3	13
TOTAL	43	38	88.4	5	11.6

Table 3j

## FEMALE JOB SATISFACTION

GROUP	n	SATISFIED		DISSATISFIED	
		No.	%	No.	%
Dropouts	5	4	80	1	20
Graduates	16	16	100	0	0
TOTAL	21	20	95.2	1	4.8

Income Satisfaction

The majority of the students surveyed (72%) expressed satisfaction with the amount of income they were receiving and generally felt that there was opportunity to earn more





in the future. Once again the females expressed a greater degree of satisfaction than did the males.

Fifteen percent of the dropout males felt that there was hardly any chance of earning more money at the job they were presently engaged at. This group represented 15 percent of the 20 dropout males and 4.7 percent of the total group of 64.

As indicated by Table 3k, approximately one quarter of all four groups combined felt their earnings were rather low but looked forward to getting more in the future.

One must remember that these are opinions expressed by the students (employees) and that the potential for increased income and advancement is highly dependent on the employers evaluation of the employee's potential. At this time, very few of the students surveyed felt their job was a dead-end job.

### Unemployment

Unemployment was not found to be an area of concern for the students surveyed. However, both the graduates and dropouts were job seeking in a Canadian economy that was expanding at a tremendous rate.

As indicated in Table 3L, one-third of the males experienced unemployment. However, many males reported that the reason for unemployment was not because they could not find work, but because they had the opportunity to travel



Table 3k

DEGREE OF INCOME SATISFACTION FOR DROPOUTS AND GRADUATES

GROUP	n	"My pay is too low and little chance of making more money"		"I'm not making much now, but expect to get more in the future"		"This job pays about right for what I am doing"		"I'm fairly well satisfied but still hope to get more"	
		No.	%	No.	%	No.	%	No.	%
MALE	Dropouts	3	15.0	4	20.0	2	10.0	11	55.0
	Graduates	0	0.0	8	34.8	4	17.4	11	47.8
FEMALE	Dropouts	0	0.0	1	20.0	1	20.0	3	60.0
	Graduates	0	0.0	2	12.5	1	6.3	13	81.3
TOTAL	64	3	4.7	15	23.4	8	12.5	38	59.4





after leaving high school. This is substantiated by figures in Table 3L, where the graduates had longer periods of unemployment. Furthermore, many high school dropouts left school prior to graduation because of a job opportunity.

A few of the females reported that the reason for their unemployment was time taken off to give birth to children.

Although the unemployment periods for all groups were relatively short, the graduate girls appeared to enter the labor market with greater ease than any other group. On the other hand, the dropout girls had the most difficult time. (The numbers are very small for this group.)

Table 3L

THE NUMBER OF MALE AND FEMALE DROPOUTS  
THAT EXPERIENCED UNEMPLOYMENT

GROUP	n	YES		NO	
		No.	%	No.	%
MALE					
Dropouts	23	8	36.4	15	63.6
Graduates	23	7	30.4	16	69.6
FEMALE					
Dropouts	4	3	75.0	1	25.0
Graduates	16	3	18.8	13	81.3
TOTAL	66	21	32.3	45	67.7



### Summary

Maritally, the girls tended to marry earlier than the boys and the dropouts tended to marry earlier than the graduates. The separation and divorce rate was not significantly different for any of the groups.

While unemployment was not a major problem for any of the groups, more dropout males were employed full-time than any other group. However, the reason for being unemployed differed for each group. The male graduates who were not occupied at permanent jobs were still occupied as students. The female dropout and graduate who did not hold a permanent position, was occupied as a homemaker. While the male dropout was employed full-time to a greater extent than anyone else, the female dropout had the lowest employment rate.

Every year of formal education supposedly results in more earnings over a life-time. However, on a short term basis (four to seven years) no significant difference occurred in the income for graduates and dropouts. The only significant difference was between the two groups of males compared with the two groups of females. The males were earning significantly more money than the females.

None of the groups indicated more job or income satisfaction than the other. Generally, those persons who were employed seemed optimistic about their future vocational success. A small percentage of the dropout boys felt





that they were in dead-end positions.

### Hypothesis III

Hypothesis III stated: There is no difference in their economic achievement.

Economic achievement for the dropouts and graduates was compared by the amount of material goods accumulated. Since the most common commodities were automobiles, bonds, savings and investment, and real estate or other kinds of property, these became the major areas for comparison. In addition, each student was asked to state the amount of life insurance protection owned as a security measure for the family, or others.

Due to the nature of the questions on the questionnaire, it was impossible to know with absolute certainty that the stated economic assets accumulated by the married females were actually theirs or under joint ownership with their husbands. As a result of this inaccuracy, only the assets reported by the male dropouts and graduates were compared.

### Ownership and Value of Automobile.

Ninety-seven percent of the male graduates and 95 percent of the dropouts owned cars. The estimated value placed on the automobile by the former was \$2330.00 and by the latter, \$2348.00. Only those males who owned a car were included in the calculation of the average values.





A gross comparison is shown in Table 4a of the estimated worth of their cars.

Table 4a  
RANGE OF ESTIMATED VALUE MALES  
PLACED ON THEIR AUTOMOBILES

GROUP	n	VALUE OF AUTOMOBILE					
		No Car	Under \$1000	\$1001 \$2000	\$2001 \$3000	\$3001 \$4000	\$4001 & Over
Dropouts	23	2	7	4	4	3	3
Graduates	30	1	6	9	7	5	2
TOTAL	53	3	13	13	11	8	5

#### Bonds, Savings, Investments, Etc.

While most males owned cars, fewer managed to accumulate liquid assets.

Two methods of calculating the average value of the liquid assets were used. First, the average amount of liquid assets were calculated using the entire sample of male dropouts and graduates. The second method was the calculation of the average value of liquid assets for only those students who reported having accumulated assets. In the calculation using method No. 1, 23 dropouts and 30 graduates were used; whereas method No. 2 only included 17 dropouts and 22 graduates.

The individuals who were still occupied as students



comprised the major portion of those who failed to report the accumulation of these types of assets. A gross categorization of the assets appears in Table 4b.

In calculating the mean assets, using all the dropout and graduate males, the average for the former was \$1100.00 and for the latter \$637.00.

Using the other method, or calculating the mean using only those individuals who reported the accumulation of liquid assets, the average for the dropout males was \$904.00 and the average for the graduates was \$868.00.

Table 4b

## LIQUID ASSETS ACCUMULATED BY THE MALES

GROUP	n	LIQUID ASSETS				
		None	Under \$500	\$501 \$1000	\$1001 \$2000	Over \$2001
Dropouts	23	5	7	5	2	4
Graduates	30	8	13	3	3	3
TOTAL	53	13	20	8	5	7

Real Estate, Etc.

Approximately 50 percent of both groups of males reported possession of one type of property or another. Consequently, the averages reported were based on those 50 percent.





The male dropout had accumulated an average of \$7,037.00 worth of real estate or other valuable possessions, whereas the graduate average was only \$5,178.00.

It is important to note that these figures do not include any individual who was still occupied as a student.

Illustrated in Table 4c is a breakdown of assessed value placed on the possessions presently owned by both groups of males.

Table 4c

ASSESSED VALUE OF POSSESSIONS BY MALES

GROUP	n	None	Under \$2500	\$2501 \$5000	Over \$5001
Dropouts	23	10	7	3	3
Graduates	30	16	8	1	5
TOTAL	53	26	15	4	8

Life Insurance Protection

The dropout males held a significant edge in ownership of active life insurance policies. Eighty-seven percent of the male dropouts were insured as compared to only 56.7 percent of the graduates (refer to Table 4d). When the amount of protection for insurance policy holders was averaged, the male dropout and graduate were insured for \$17,600.00 and \$17,412.00, respectively.



It should be noted that although no statistical difference was found between dropouts and graduates regarding marital status, one can speculate that the dropout males proportionately held more active insurance policies than the graduate males because of greater percentage of the male dropouts were married and between both married groups the dropouts had an edge on the number of children.

Table 4d

## RATE OF LIFE INSURANCE POLICIES OWNED BY MALES

GROUP	n	INSURANCE POLICIES IN FORCE			
		YES		NO	
		No.	%	No.	%
Dropouts	23	19	82.7	4	17.3
Graduates	30	17	56.7	13	43.3
TOTAL	53	36	68.0	17	32.0

Chi-Square = 5.018 with 1 degree of freedom, probability < .05

Table 4e

## LIFE INSURANCE PROTECTION IN TENS OF THOUSANDS FOR MALE DROPOUTS AND GRADUATES

GROUP	n	None	Under	\$10001	\$20001	Over
			\$10000	\$20000	\$30000	\$30001
Dropouts	23	4	9	5	1	4
Graduates	30	13	10	3	2	2
TOTAL	53	17	19	8	3	6

Chi-Square = 5.92 with 4 degrees of freedom, probability > .05



### Summary

Economic achievement for male dropouts and graduates showed little variation. In point of fact, when a slight difference was found, it was in favor of the dropout.

Practically every boy surveyed owned a car with the average value being almost identical for the dropouts and graduates. The dropout boys saved money, invested in stocks and bonds, and carried mortgages to the same extent as the male graduates. Moreover, the dropouts saw fit to secure their investments and families by owning life insurance. Once again the differences between the two groups were slight, but the differences that occurred favored the male dropout.

### Hypothesis IV

Hypothesis Iv stated: There is no difference in their past school experiences.

Each individual surveyed was requested to assess his/her feelings and attitudes regarding various aspects of their past school experiences.

Feedback was sought with regards to the guidance and counselling program in the school, the degree of pleasant or unpleasant memories about past school experiences, and the satisfaction derived from the high school program. Information was also sought concerning each individual's relationship with students, teachers, and administrators, and the





opportunity to participate in the variety of activities offered in the total high school programs.

### Guidance and Counselling Program

The guidance and counselling program in the County of Strathcona high schools was a relatively new educational venture at the time these students were enrolled in grade IX. Counsellors were available only at the secondary level and functioned as part-time teachers as well as performing guidance and counselling tasks.

Several questions were asked of the students surveyed to get insight into the attitudes they have maintained as a result of their past experiences in high school.

"Did you feel free to talk over school difficulties with the counsellor in your school?"

Five boys failed to respond to the question. Of the 79 people who did respond, 35.4 percent indicated that they could approach the counsellor to discuss school difficulties. No significant difference was found between any of the groups; however, both groups of females were slightly less inhibited than the males. The percentage of graduate males who responded positively was less than any of the other three groups. A summary of the responses appears in Table 5a.



Table 5a  
STUDENTS WHO FELT FREE TO DISCUSS SCHOOL  
PROBLEMS WITH THE SCHOOL COUNSELLOR

GROUP	n	YES		NO	
		No.	%	No.	%
MALE					
Dropouts	20	7	35.0	13	65.0
Graduates	28	8	28.6	20	71.4
FEMALE					
Dropouts	10	4	40.0	6	60.0
Graduates	21	9	42.9	12	57.1
TOTAL	79	28	35.4	51	64.6

Chi-Square = 1.175 with 3 degrees of freedom, probability > .05

Although only 35.4 percent of the total group felt free to approach the school counsellor to discuss school difficulties, 54.2 percent of the total group indicated that there was someone on the school staff they could turn to when it was necessary to discuss some matter of great concern to them. Slight differences appeared between dropouts and graduates. However, 63.4 percent of the females indicated there was someone on staff to consult with as compared to only 48 percent of the males.





"To what extent had the vocational guidance information you received in school been helpful to you?"

Table 5b indicates that approximately the same percentage of people felt that the vocational guidance was helpful as the number that felt it was not helpful. About one-quarter of the respondents said it was of "very little help."

Table 5b

## BENEFICIAL EFFECTS OF VOCATIONAL GUIDANCE PROGRAMS

GROUP	n	DEGREE OF HELPFULNESS									
		Extremely Helpful		Some Help		Very Little Help		Not Helpful		Didn't Have Any	
MALE											
Dropouts	23	1	4.3	7	30.4	4	17.4	5	21.7	6	26.1
Graduates	29	0	0.0	11	37.9	10	34.5	5	17.2	3	10.3
FEMALE											
Dropouts	10	1	10.0	5	50.0	0	0.0	4	40.0	0	0.0
Graduates	21	1	4.8	6	28.6	6	28.6	6	28.6	2	9.5
TOTAL	83	4	3.6	29	34.9	20	24.1	20	24.1	11	13.3

Chi-Square = 14.131 with 12 degrees of freedom, probability  
> .05

Sixty percent of the dropout girls indicated the vocational guidance received was helpful as compared to only 33.2 percent of the graduate girls. On the other hand, 34.7



percent of the dropout boys indicated it was helpful along with 37.9 percent of the graduates.

Approximately two-thirds of all surveyed students felt that counselling services should have been made more available. The only group that fell below the two-thirds mark were the graduate males, with a "Yes" response of 62.1 percent.

When asked if they would use the counselling services now, just over 50 percent of the total group indicated they would. This figure is approximately 15 percent higher than the ones who felt free to visit the counsellor while in high school.

Twenty-five percent of the total group said they had more problems while in school than they had now in the adult world. Forty percent of the dropout females and 30.4 percent of the dropout males responded this way as compared to 19 percent of the graduate females and 21.4 percent of the graduate males.

Both groups of dropouts enjoyed their school years less than the graduates. While the male and female graduates and the dropout girls indicated they were now generally happy (84 percent) only about two-thirds of the dropout males said they were happy at this present time.

While only 4.3 percent of the dropout boys responded that they were presently unhappy, a large portion, 30.4 percent, chose the average category which would indicate that



there were a number of "downs" as well as "ups."

#### Opinion on School Program and Services

Most of the students surveyed were of the opinion that the high school they attended offered a good program of education and accompanied services. Generally the females agreed that the program offered in the school they attended was adequate in meeting their needs. Ninety percent of all the females responded positively to the adequacy of the program and 19 percent of the graduate females "strongly agreed" that the program in their school was good.

The males held a less favorable opinion of the school program of education. Approximately 30 percent of the dropouts and 21 percent of the graduates disagreed that the school offerings were adequate. Even though there was a difference in percentages between males and females, the differences were not that great. A summary of the responses appears in Table 5c.





Table 5c

OPINION ON THE ADEQUACY OF THE HIGH SCHOOL PROGRAM  
EACH OF THE MALE AND FEMALE GRADUATES AND DROPOUTS  
WERE ONCE ENROLLED IN

GROUP	n	Strongly Agree	Agree	Disagree	Strongly Disagree
		%	%	%	%
MALE					
Dropouts	23	4.3	65.2	21.7	8.7
Graduates	28	14.3	64.3	14.3	7.1
FEMALE					
Dropouts	10	0.0	90.0	10.0	0.0
Graduates	21	19.0	71.4	9.5	0.0
TOTAL	82	11.0	69.5	14.6	4.9

#### Relationship with Teachers, Administrators, and Other Students

One hundred percent of both groups of girls indicated that they generally got along well with their teachers. The relationship between the boys and teachers was not quite as favorable, with 10.3 percent of the graduate and 4.3 percent of the dropout boys indicating that the relationship was generally poor.

A significant difference occurred between males and females in their relationship with the administrators. For those people who indicated that they did not get along with



the administration the range in percent was as follows: dropout males 30.4, graduate males 17.2, dropout females 10.0, and graduate females zero. Table 5d illustrates the summary of responses.

Table 5d  
THE RELATIONSHIP WITH ADMINISTRATION  
FOR ALL THE GROUPS SURVEYED

GROUP	n	GOOD		POOR	
		No.	%	No.	%
MALE					
Dropouts	23	16	69.6	7	30.4
Graduates	29	24	82.8	5	17.2
FEMALE					
Dropouts	10	9	90.0	1	10.0
Graduates	21	21	100.00	0	0.0
TOTAL	83	70	84.3	13	15.7

Chi-Square = 7.997 with 3 degrees of freedom, probability < .05

Of the three groups interacting in the school, the students in this survey got along best with their peers. Only a small percentage of males indicated that they had difficulty with other students. To summarize briefly, 4.3 percent of the dropout males, and 6.9 percent of the graduate males said they generally did not get along well with their peers.





### Part-Time Job Versus Full-Time Students

Although the dropouts, both male and female, were more in favor of part-time employment while attending school, no statistical differences occurred between male and female dropouts and male and female graduates. Furthermore, there was no difference between males and females of both groups.

The probability level of the chi-square analysis was 0.41 between males and 0.61 between females. Both probabilities were well beyond the .05 level.

### Ownership of Automobile While Attending School

Slightly less than one-third of the dropout boys (31.8 percent) and the graduate boys (30.0 percent) owned cars when they attended high school. Although no differences were found between the males, there was a significant difference between the sexes. Only 4.8 percent of the graduate girls had cars and one of the dropout girls owned a car.

Although the boys did not vary by percentage on car ownership, there was some variance on the ability to afford to operate the car. Of the car owners, 28.6 percent of the dropouts and 11.1 percent of the graduates said the car was a financial burden.

### Opportunities in Extra-Curricular Programs

Many researchers state that one of the major characteristics of students who drop out of school was a failure



to participate in extra-curricular activities. Each person in this survey was asked to evaluate his experiences regarding the school's extra-curricular activities on a three point scale.

Consequently the results did not agree with many of the previous findings. However, one of the limitations of the findings of this study was that each person was simply asked whether he had the opportunity to participate in extra-curricular programs and not whether or not he did participate. Nor was the number of activities each person took part in accounted for.

Nevertheless, the following results are an expression of attitude towards other parts of the curriculum besides the academic portion.

Each person was to indicate whether (a) he had plenty of opportunity to participate, (b) it was harder to get into some groups than others, or (c) several cliques ran the school's activities.

The greatest variation occurred between the males. While 87 percent of the male dropouts said they had plenty of opportunity to participate in activities, only 60 percent of the graduate males indicated the same. By chi-square analysis, a probability of 0.067 indicated a substantial variation in proportion but the difference failed to meet the .05 level.



There was small variation in the responses made by the females. Only 41.9 percent of both groups of females felt they had the opportunity to participate in extra-curricular activities. The probability level for a chi-square value of 0.586 was 0.746.

When the males and females of each group were combined a significant chi-square value (12.897 with 6 D.F.) resulted. The school's extra-curricular activities seemed to be geared to the male population. Table 5e illustrates a complete summary of the responses made by all the groups in the survey.

Table 5e

ATTITUDE TOWARDS THE HIGH SCHOOL'S  
EXTRA-CURRICULAR PROGRAM

GROUP		n	"I had a lot of opportu- nity to participate"		"It was much harder to get into some groups than others"		"Several cliques ran the extra- curricular program"	
			No.	%	No.	%	No.	%
MALE								
Dropouts	23		20	87.0	2	8.7	1	4.3
Graduates	30		18	60.0	4	13.3	8	26.7
FEMALE								
Dropouts	10		4	40.0	1	10.0	5	50.0
Graduates	21		9	42.9	4	19.0	8	38.1
TOTAL		84	51	60.7	11	13.1	22	26.2

Chi-Square = 12.897 with 6° of freedom, probability < .05





### Summary

The dropouts found certain aspects of their past school experiences less favorable than the graduates, especially in the area of curriculum and their relationship with persons in authority. However, upon leaving high school they usually embarked into satisfying occupations.

The curriculum selection in the high schools appeared to be more adequate for the girls. But on the other side of the coin, the extra-curricular activities in the high schools tended to be more suitable for the male groups. Contradictory evidence was found concerning the groups of students who felt they had plenty of opportunity to participate in extra-curricular activities. While this part of the school program appeared to be geared to the males in the school, the dropout boys indicated that they had the best opportunity to participate in the extra-curricular programs. But one question left unanswered was the extent of their participation. Both groups of girls were of the opinion that certain groups of students, or cliques, had influence which made it difficult for many girls to become involved in "social-type" activities.

Approximately one-quarter of all persons surveyed said that the guidance services were helpful although the utilization of the services was limited because of insufficient time allocated to guidance personnel. Fifty percent of the people indicated that they would use the service at



the present time.

The relationship between teachers and students was generally very good. However, the boys seemed to have more conflict with authority, especially the dropout boys.





## CHAPTER V

### SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

#### Summary

The average high school dropout in this particular study was as well established in the adult world of work as the average high school graduate. If it can be said that the high school graduate makes worth-while contributions to society, in many instances the same can be said for the high school dropout. Generally speaking, the graduates and dropouts did not differ significantly in areas of educational, vocational, or economic achievement. Neither did they vary in much of a degree in attitudes concerning past school experiences.

Of twenty independent variables, the male dropouts and graduates differed on only two of the nine that were statistically tested. Due to the lack of subjects in some of the groups, especially the female dropout group, comparisons by proportions could not be analyzed statistically. In those instances the results for the dropouts and graduates were presented in percentages for those variables that could not be statistically tested.

In point of fact, more differences were found between male and female groups than dropout and graduate groups. Of the seventeen variables that the males and females were com-



pared by, a significant difference was found on four of the eight variables statistically tested.

While both groups of boys had a large percentage of the members follow a continuing education pattern, the major difference in the patterns was that 43 percent of the graduates who entered a program, entered at the university level. No male or female dropout enrolled in a university program. Since it was impossible to directly compare different continuing education programs, the length of the programs was compared for the boys and no differences were found.

A significant difference was found between males and females in continuing education patterns. Firstly, more boys entered programs, and secondly, the girls tended to enroll in shorter continuing education programs, such as clerical training. The female graduate group had the fewest numbers in continuing education. From the findings it would appear that in most instances their high school education adequately prepared them for the typical female vocations - clerical and secretarial employment.

Job status did not vary significantly for male groups. However, slightly less than one-quarter of the graduate boys were still attending university, or had just graduated and were not included in comparing socio-economic status. Possibly when these people become regular members of the labor force, status will swing. Half the dropout girls were employed and the other half were occupied as housewives. In this





study the married graduate females were employed at occupations, other than homemaking, to a greater extent than the female dropouts.

The males, as a combined group, were earning significantly more money than the females. However, no difference was found in earnings between the female dropouts and graduates. All groups indicated that they were quite satisfied with their jobs, and with regard to income, hoped to be earning more in the future. A small percentage of dropout boys (15 percent) felt that there was no possibility of earning more money at the job they were engaged in. Job mobility for all groups resulted when better employment opportunities became available.

A comparison of economic achievements was only made for the boys. The dropouts owned or had accumulated as many, or more, assets as the graduate boys. The dropouts also demonstrated that they were conscious of securing their accumulated possessions and protection for those dependents who relied on them, by purchasing life insurance.

With regards to past school experiences, the dropouts said they were generally happier now than they had been during their school years. All groups got along relatively well with teachers, administrators, and peers, except for the dropout boy's relationship with the administration of the school. Where the school curriculum appeared to be geared to the female in the school, the extra-curricular activities





seemed to be geared to the males. The female dropouts indicated that it was quite difficult to get involved in the extra-curricular activities because of the influential groups or cliques who appeared to run the programs. On the other hand, the dropout boys indicated that they had more opportunities to participate in extra-curricular activities than any other group. This finding was contrary to the research reviewed. Unknown though, was whether these boys actually participated, and if they had, in how many activities.

### Implications

School dropout accounting procedures have undergone many changes and numerous formulas have been utilized over the years. Some distinction has been made between the voluntary and involuntary school dropouts. However, the distinction has yet to be made between those people who obtain a high school diploma in an uninterrupted fashion, and those people who leave school prior to high school graduation, but pursue a continuing education program. Continuing education constitutes a variety of forms whereby one can eventually obtain a high school diploma or it's equivalent. For example, 15 percent of the high school students who were classified as high school dropouts, for this study, eventually obtained a high school diploma.

An extremely significant finding of this study was



that formal education or training does not terminate when one leaves school--either through early withdrawal or graduation--but very often is a continuous process. Interestingly, the dropouts (male and female in this particular study) embarked upon some type of continuing education to the same degree as the graduates. Although no statistical difference resulted, the percentage of dropouts who entered programs was actually greater than the graduates.

Two questions are posed: Firstly, how credible was the high school diploma for those people who managed to graduate from high school? Secondly, what does the phrase "high school dropout" actually imply, and when one speaks of a "high school dropout," what type of person does one envisage?

The results of this study were very similar to that reported in 1966 by Vincent and Black for a group of male high school dropouts in the Calgary area. That is, a substantial number of high school dropouts do as well vocationally, economically, and educationally as the high school graduate.

The study conducted by Hughes (1968) found that an Albertan youngster has approximately one chance in two of graduating from high school. Undeniably, certain segments of our Alberta population are seriously disadvantaged when competing in a highly technological labor market. But what about the person who has a grade ten, eleven, or twelve





educational background and enters an apprenticeship program or transfers to a technical institute (NAIT)? Evidence points out that this is not the dropout that becomes dependent upon society. An industrialized society demands that its labor force be highly skilled. However, there appears to be no guarantee that a high school diploma will provide these skills.

Due to the few differences found between the high school dropout and graduate in this study, one might conclude that there are some "psychological" or "in-school" dropouts who passively inhabit our classrooms. These would appear to be the students, for lack of opportunity to do anything else, attend classes irregularly and uninterestingly, frequently possessing much ability, and meet minimum standards to eventually graduate from high school with one-hundred credits. Often the term "stick-to-itiveness" is used to describe the lesson learned; however, it has become an extremely expensive proposition.

The highest unemployment rates in our country are for the sixteen to twenty year olds. But it should not be emphasized that these unemployed individuals are not employed because they are high school dropouts; they are unemployed because of the kinds of jobs their training--or lack of it--fits them for is vanishing. Because of the void that occurs for this age group in their transition from student to wage earner, politicians have urged these young people to remain



in school or return to school. By returning to school, many students were faced with the same problems for which they left. Hence, stay-in-school campaigns have not been overly successful.

The importance of education is constantly measured in dollar value. However, evidence obtained through follow-up research indicates that some Alberta high school dropouts acquire education and job experience outside of the public school system and function as well, and in some instances, better than many high school graduates.

#### Educational Recommendations

1.       Emphasis should be directed towards encouraging actual and potential school dropouts to pursue other forms of continuing education besides that provided by the public school.
2.       The community and the business world must become more involved in educating youth and adults by utilizing existing resources to bridge the gap between education and industry. Wider development of on-the-job training programs, or "learn as you earn" programs, would make educational and work experiences more meaningful.
3.       Through the development of school-community programs, the school and interested individuals in the commun-





ity would carry out programs at the junior and senior high school levels, placing strong emphasis on counselling the student and familiarizing him with employment opportunities in the area.

4. Wider implementation of work study programs would reduce the vague conceptions young people have about the world of work. Modifications of the school curriculum to relate school subjects to the numerous fields of employment, and career seminars, would provide the youngster with the opportunity to discuss the nature of work with employers and employees, whose role it would be to make education relevant to employment.

#### Recommendations for Further Research

1. To date, most follow-up studies of the high school dropout provide contradictory evidence on the fate of this individual. While it has been the belief that he was destined to a life of failure and frustration, research has not indicated that this is what actually happens. However, most of the studies have been conducted shortly after the person has left school, and the dropout by virtue of the fact that he has been in the labor market longer, has had a head-start on the graduate. Consequently, there





is a definite need for research that follows these people over a much longer period of time and attempt to determine if the school dropout keep pace with the high school graduate.

2. Most follow-up studies are conducted on male high school dropouts. With the increase of women in the labor force and with the revolutionary change in marital and family status, it would appear that more effective follow-up procedures are required which place more emphasis on the female that leaves high school prior to graduation. Since girls are much more difficult to locate as a result of marriage and name change, contact must be maintained with dropouts and graduates from the time they depart from school. Follow-up research on females is practically negligible.
3. With the expansion of our high school curriculum, especially in the vocational field, it would be enlightening to determine whether these types of programs have provided an alternative to the traditional academically-orientated high school.



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## APPENDICES



## APPENDIX A

## I QUESTIONNAIRE MAILED TO ALL SUBJECTS

A POST HIGH SCHOOL SURVEY OF  
YOUTH OPINION

## INSTRUCTIONS:

Some of the questions require an "X" to complete the answer. Others require you to fill in words or phrases. Please be sure to answer all those questions that pertain to you. On the last page is a place for your comments and suggestions.

YOUR REPLIES WILL BE HELD STRICTLY  
CONFIDENTIAL.

WE APPRECIATE YOUR  
HELP IN THIS STUDY





## QUESTIONNAIRE

## I MARITAL-OCCUPATION STATUS

1. Are you now, or were you ever married?

\_\_\_\_\_ Yes \_\_\_\_\_ No

If you answered "YES" complete questions

(a) through (d):

(a) When were you married?

\_\_\_\_\_ Month \_\_\_\_\_ Year

(b) Present marital status:

\_\_\_\_\_ Married

\_\_\_\_\_ Divorced

\_\_\_\_\_ Divorced and remarried

\_\_\_\_\_ Separated

\_\_\_\_\_ Widow or widower

(c) Any children? \_\_\_\_\_ How Many? \_\_\_\_\_

(d) If you are a married woman, do you have  
a job outside the home? (that is, other  
than household duties.)

\_\_\_\_\_ Yes \_\_\_\_\_ No

If so, what do you do?

\_\_\_\_\_  
\_\_\_\_\_



2. If you are not married, do you plan to be married in the near future?

\_\_\_\_\_ Yes                      \_\_\_\_\_ No

3. How are you now occupied?

\_\_\_\_\_ Employed for wages, full-time

\_\_\_\_\_ Employed for wages, part-time

\_\_\_\_\_ Unemployed and seeking work

\_\_\_\_\_ Housewife

\_\_\_\_\_ Other \_\_\_\_\_

4. If you are EMPLOYED full-time or part-time now, state the job title and some of the important tasks you do:

JOB TITLE: \_\_\_\_\_

\_\_\_\_\_

TASKS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. If employed full-time or part-time, what is your monthly wage in dollars?

_____ under 200	_____ 401-450
_____ 201-250	_____ 451-500
_____ 251-300	_____ 501-550
_____ 301-350	_____ 551-600
_____ 351-400	_____ Over 600



6. How do you like your present job?  
\_\_\_\_\_ I like it very much.  
\_\_\_\_\_ I don't like it, but I will  
have to put up with it.  
\_\_\_\_\_ I dislike it very much.
7. Do you plan to change jobs within the  
next few months?  
\_\_\_\_\_ Yes \_\_\_\_\_ No  
If YES, why? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Have you ever been unemployed since you  
left school? \_\_\_\_\_ Yes \_\_\_\_\_ No  
If YES, what was the total length in  
time of your unemployment?  
\_\_\_\_\_ less than one week  
\_\_\_\_\_ one week  
\_\_\_\_\_ two to three weeks  
\_\_\_\_\_ one month  
\_\_\_\_\_ two to four months  
\_\_\_\_\_ five to eight months  
\_\_\_\_\_ nine to twelve months  
\_\_\_\_\_ more than one year
9. Have you usually related well with your  
fellow employees? \_\_\_\_\_ Yes \_\_\_\_\_ No
10. Have you usually related well with your  
employers? \_\_\_\_\_ Yes \_\_\_\_\_ No





11. Which of the following statements best describes your feeling regarding your present income?

\_\_\_\_\_ my pay is too low and there is hardly any chance of making more money at this job.

\_\_\_\_\_ I'm not making much now, but I expect to get paid better at this job in the future.

\_\_\_\_\_ this job pays about right for what I am doing.

\_\_\_\_\_ I'm fairly well satisfied with the pay for this job, though I still hope to get more.

12. Since leaving school you may have accumulated some assets. Indicate which of the following you have obtained, and the value of each.

A car	_____ yes	_____ No	Value _____
Insurance (Life)	_____ yes	_____ No	Value _____
Investments, stocks, bonds, etc.	_____ yes	_____ No	Value _____
Bank savings	_____ Yes	_____ No	Value _____
Real estate	_____ Yes	_____ No	Value _____
Other assets	_____ Yes	_____ No	Value _____
_____			Value _____
_____			Value _____

## II EDUCATION

13. Did you enroll in some type of continuing education program after leaving school?

\_\_\_\_\_ Yes \_\_\_\_\_ No



If "YES" check one or more of the items listed below:

- ☐ Agricultural College
- ☐ Apprenticeship Program
- ☐ Correspondence School
- ☐ Evening School
- ☐ Junior College
- ☐ Technical Training
- ☐ University
- ☐ Private School (e.g. Alberta College, Bible School, Chicago Vocational training, etc.)
- ☐ Other \_\_\_\_\_

If you answered "YES" to the above (question 13) how many months of this training or education, did you take?

- ☐ 1 to 6 months
- ☐ 7 to 12 months
- ☐ 13 to 18 months
- ☐ 19 to 24 months
- ☐ over two years

14. If you left school without a High School Diploma, have you received a diploma since that time?      ☐ Yes      ☐ No
15. Do you feel that a High School Diploma is a necessity?      ☐ Yes      ☐ No





16. If you did not get further education of any kind since you left school, will you indicate the reason:

\_\_\_\_\_ insufficient funds (had to work)  
\_\_\_\_\_ no place in the community to get  
the training I wanted  
\_\_\_\_\_ marriage  
\_\_\_\_\_ no interest  
\_\_\_\_\_ other \_\_\_\_\_

### III GUIDANCE

17. To what extent has the vocational guidance information you received in school been helpful to you?

\_\_\_\_\_ extremely helpful  
\_\_\_\_\_ some help  
\_\_\_\_\_ very little help  
\_\_\_\_\_ it wasn't helpful at all  
\_\_\_\_\_ didn't have any in school

18. Did you feel free to talk over school difficulties with the counsellor in your school? \_\_\_\_\_ Yes \_\_\_\_\_ No

19. Do you feel that the school counsellor helped you during your Junior High School and Senior High School years by providing useful guidance and direction? \_\_\_\_\_ Yes \_\_\_\_\_ No

20. Have you sought counselling services since leaving school? \_\_\_\_\_ Yes \_\_\_\_\_ No



21. Should counselling services have been made more available to you in school?

\_\_\_\_\_ Yes \_\_\_\_\_ No

22. Would you use them now?

\_\_\_\_\_ Yes \_\_\_\_\_ No

23. "In school, I had more problems than I have now." \_\_\_\_\_ Yes \_\_\_\_\_ No

24. During your school years, you were generally:

\_\_\_\_\_ happy  
\_\_\_\_\_ unhappy  
\_\_\_\_\_ about average

25. "Now I am generally:"

\_\_\_\_\_ happy  
\_\_\_\_\_ unhappy  
\_\_\_\_\_ about average

#### IV SCHOOL EXPERIENCES

26. Would you consider your school experiences as pleasant or unpleasant?

\_\_\_\_\_ pleasant  
\_\_\_\_\_ unpleasant  
\_\_\_\_\_ neither  
\_\_\_\_\_ can't remember



27. Your high school provided a good program of education and services:

\_\_\_\_\_ strongly agree  
 \_\_\_\_\_ agree  
 \_\_\_\_\_ disagree  
 \_\_\_\_\_ strongly disagree

28. Generally, how did you get along at school with the:

	Very well	Good	Not very well	Very poorly
Teachers	_____	_____	_____	_____
Principal				
Vice-principal	_____	_____	_____	_____
Other				
Students	_____	_____	_____	_____

29. Was there anyone on the school staff you could turn to when it was necessary to discuss some matter of great concern to you?

\_\_\_\_\_ Yes                      \_\_\_\_\_ No

30. If you left school before receiving your high school diploma, please state your reason(s) why.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

31. In your opinion, which of the following would you recommend for high school students?

\_\_\_\_\_ they should concentrate full-time on their school studies  
 \_\_\_\_\_ they should have a part-time job that will prepare them for a later occupation.





32. Did you own a car when you were in school?

\_\_\_\_\_ Yes \_\_\_\_\_ No

If YES, did this cause financial problems?

\_\_\_\_\_ Yes \_\_\_\_\_ No

33. Looking back on your high school extra-curricular program or "social life," how do you feel about these experiences?

\_\_\_\_\_ I had a lot of opportunity to take part in any of the school's extra-curricular activities.

\_\_\_\_\_ It was much harder to get into some clubs and student groups than others.

\_\_\_\_\_ Several "cliques" or groups of kids, ran the school extra-curricular program; if you weren't a part of that group, you were just out of luck.

34. In the space below, write anything you would like to add to this questionnaire, or any comments or suggestions. Continue your comments on the back of this page if you wish.

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Do you wish a copy of the results of this questionnaire? \_\_\_\_\_ Yes \_\_\_\_\_ No

NAME

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ADDRESS

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## APPENDIX A

II LETTER WHICH ACCOMPANIED INITIAL MAILING OF  
QUESTIONNAIRE

Department of Education  
University of Alberta  
Edmonton, Alberta

Dear

Here at the University of Alberta we are currently working on a research project which will collect certain kinds of information and opinions from former high school students. This project may eventually benefit a great many young people like yourself. From the results of this study it is hoped that recommendations can be made for the improvement of junior and senior high schools in the County of Strathcona, specifically, and Alberta generally.

I am enclosing a questionnaire that will take about 10 to 15 minutes of your time. Your name was selected from high school records where you last attended. Some of the questions ask for facts about yourself, others will ask you to indicate your opinions, or feelings about certain things.

WHATEVER YOU INDICATE ON THIS QUESTIONNAIRE WILL  
BE HELD STRICTLY CONFIDENTIAL.

Because we are sending this questionnaire to a limited number of people, you actually represent many others whom we can't contact. It is vital, therefore, that everyone in this limited group completes and returns the enclosed questionnaire. The value of this project will depend on the results we obtain from you - can we count on your help?

For your convenience I have included a self-addressed, stamped envelope in which to return the questionnaire. If you feel that there are some things you want to add to the information asked for in the questionnaire, please use the space provided at the end of the questionnaire.





- 2 -

We would appreciate any comments or suggestions that you wish to make. Thanking you in advance,

Yours truly,

Ernie Leeck

P.S. If you feel that you would be interested in the results of this project, we would be happy to send you a copy of some of the most interesting findings. Please indicate on the questionnaire if you would like to get these results, including your name and mailing address to which these results may be sent.



## APPENDIX A

III LETTER WHICH ACCOMPANIED SECOND MAILING OF  
QUESTIONNAIRE

Box 1972

Sherwood Park, Alta.

Dear

Several weeks ago we sent a questionnaire to a selected group of former students from the County of Strathcona. This questionnaire is part of a research project to try and determine what youth do after they leave school.

Because of limited funds and time, these questionnaires were sent to only a few people. Therefore, we are seriously interested in getting all of them completed and returned.

Perhaps it has slipped your mind, or maybe the questionnaire was mislaid. Enclosed is another questionnaire. We will be extremely appreciative if you would complete it and return it as quickly as possible.

Yours truly,

Ernie E. Leeck

EL/h



## APPENDIX B

I CHARACTERISTICS OF THE MALE AND FEMALE GRADUATES  
AND DROPOUTS FROM THE SUBJECTS USED IN THE STUDY

As reported in the recent literature, (Black, MacArthur, and Paterson, 1961; Deno, 1963; Hocks, 1965; Tuel, 1966; Campbell, 1966; Schaffler, 1966; Frerichs, 1967; and Scales, 1969) the major factors associated with dropping out of school were generally found to be sex, age, achievement, mental ability, and socio-economic status.

This information from the groups of former students was obtained from school records and each independent variable was tested by a two-way analysis of variance to determine whether in fact these characteristics in each of the groups--dropout and graduate, male and female--could differentiate the dropouts from the graduates.

Upon analysis, it was discovered that the dropouts and graduates differed only in age and achievement. No significant differences were found in mental ability or socio-economic status. As far as the numbers of male dropouts compared to the number of female dropouts, the ratio was approximately 2:1, respectively.

AGE

A significant difference was found in the age of the





dropouts and graduates. The dropout boys were on the average six months older than the graduates. Similarly, the dropout girls were approximately ten months older than the graduate girls. The age difference between the male and female dropouts was slight, as was the case for the male and female graduates. Furthermore, the interaction effect between sex of dropping out and graduating was insignificant. Of the 23 male and 10 female dropouts, 13 males and five females failed at least one grade before they reached grade IX.

Figure 2 presents a graphic illustration of the variation in ages and Table 6b presents the analysis of variance table for the age factor.

Figure 2

GRAPHIC ILLUSTRATION FOR VARIATION IN AGE

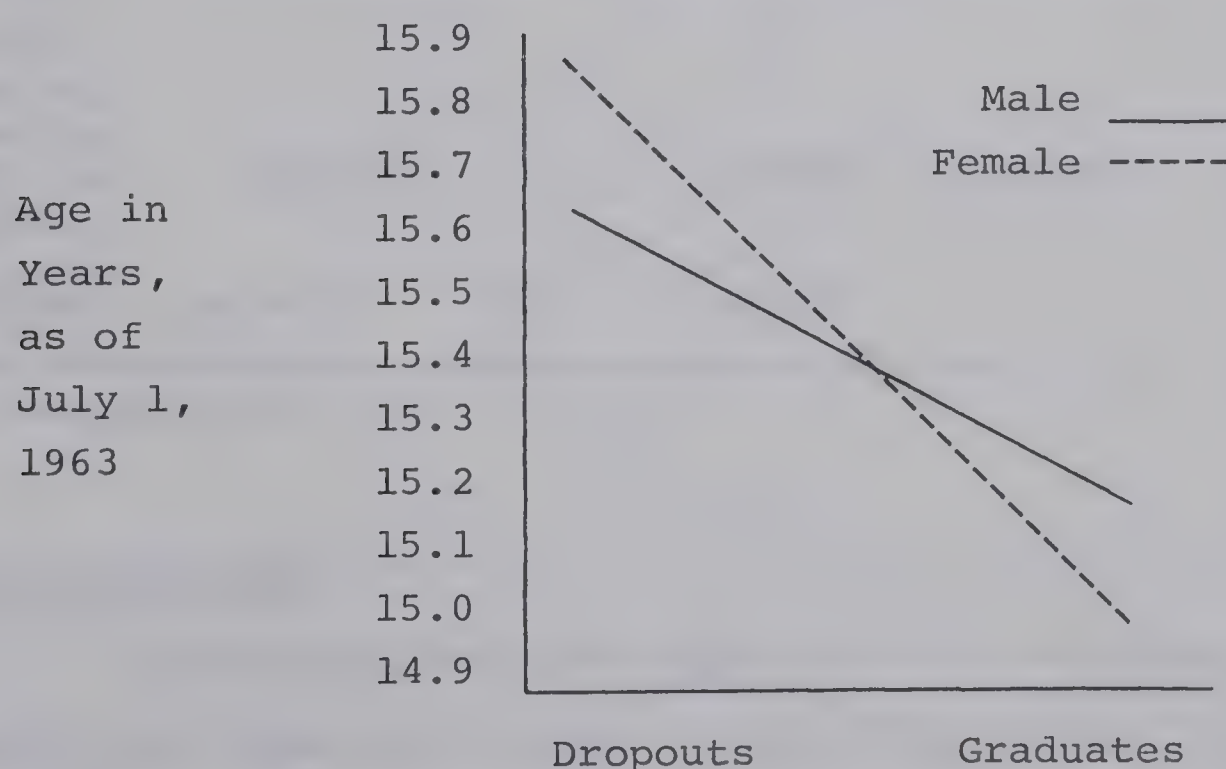




Table 6a  
CELL MEANS MATRIX FOR THE AGE FACTOR

	N	Male	N	Female
Dropouts	23	15.68	10	15.84
Graduates	29	15.18	21	14.99

Table 6b  
ANALYSIS OF VARIANCE TABLE FOR AGE FACTOR

SOURCE	SUM OF SQUARES	D.F	MEAN SQUARES	F-RATIO	PROBABILITY
Between					
D.O. & Grads.	8.12500	1	8.12500	18.878677	0.000042*
Male & Female	78.12500	1	78.12500	0.018153	0.893167
Inter- action Sex By D.O. & Grads.	.585938	1	0.585938	1.361443	0.246798
Error	34.00000	79	0.430380		

\* Probability < .05

#### SOCIO-ECONOMIC

The rating of each student's socio-economic background was based on the job title of the father. The father's status was based on a seven category scale as





determined by Blishen's 1951 socio-economic index. The reason his most recent index was not used (based on 1961 census of Canada) was that farmers were excluded. This was important since approximately 29 percent of the entire sample in the survey originated from the farm. Even though there is a space of ten years between the two indexes, the correlation between the 1951 index and the 1961 index was .96 (Blishen, 1968, p. 744).

The major limitation in rating the father's socio-economic status was the lack of accurate information in the school cumulative files.

Figure 3 illustrates the socio-economic background of the male and female graduates and dropouts. The graphic illustration indicates some variance in the mean scores between the female dropouts and graduates, but is negligible between the male groups. The probability values of the F-scores in Table 7b show that there was no significant differences between dropouts and graduates nor between males and females. Furthermore, the interaction effect was also insignificant.

Table 7a  
CELL MEANS MATRIX FOR SOCIO-ECONOMIC FACTOR

	N	Male	N	Female
Dropouts	23	4.695	10	4.0000
Graduates	29	4.689	21	4.952



Figure 3  
GRAPHIC ILLUSTRATION OF  
VARIANCE IN SOCIO-ECONOMIC STATUS

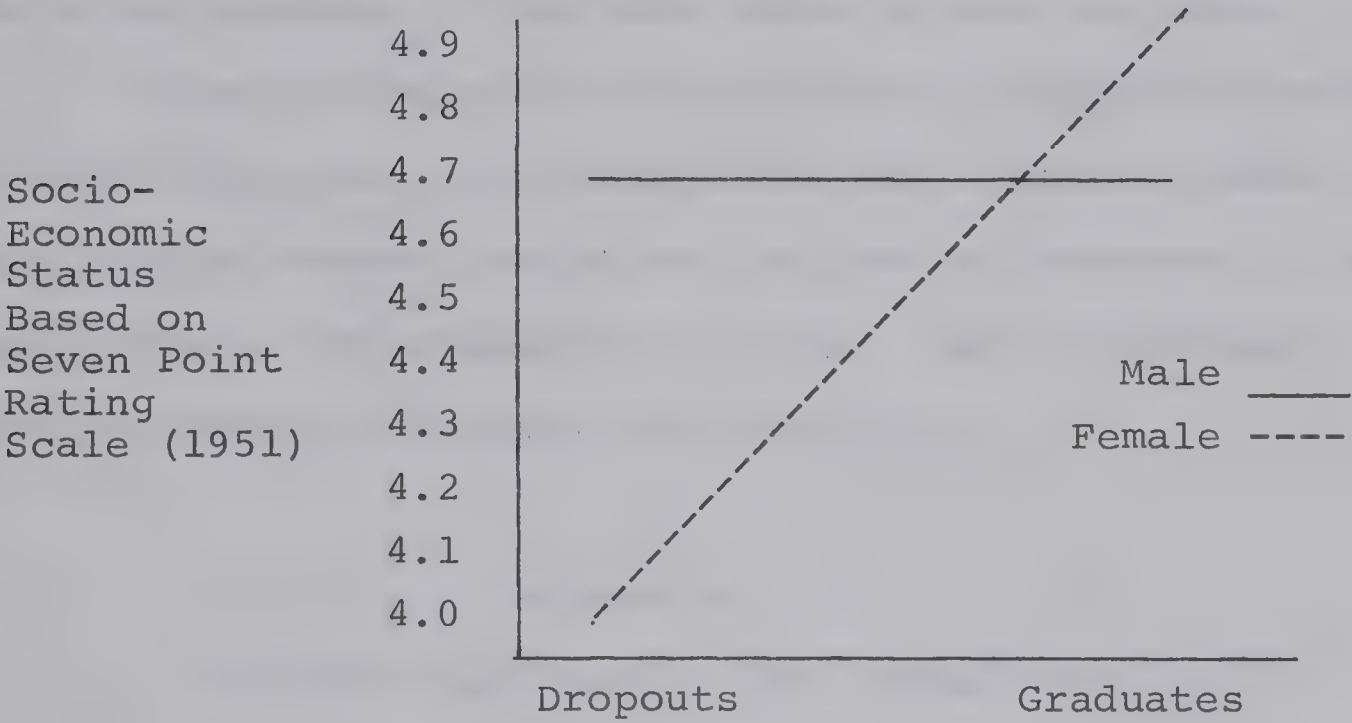


Table 7b  
ANALYSIS OF VARIANCE TABLE FOR SOCIO-ECONOMIC  
FACTOR

SOURCE	SUM OF SQUARES	D.F.	MEAN SQUARES	F-RATIO	PROBABILITY
Between					
D.O. & Grads.	3.97241	1	3.97241	1.961022	0.165318
Male & Female	0.83203	1	0.83203	0.410741	0.523450
Inter-action sex by D.O. & Grads.	4.07178	1	4.07178	2.01007	0.160187
Error	160.029	79	2.03568		

Probabilities > .05



ACHIEVEMENT

Each student's achievement was that obtained on the 1963 Grade IX Departmental Examinations. The score was the aggregate stanine of the four Grade IX core subjects.

The graduates were significantly higher achievers than the dropouts. Although there was a larger spread in mean scores between the males, neither differences in averages by sex, nor interaction effects, were significant. Make reference to Figure 4 and Table 8b.

Figure 4

## GRAPHIC ILLUSTRATION FOR ACHIEVEMENT FACTOR

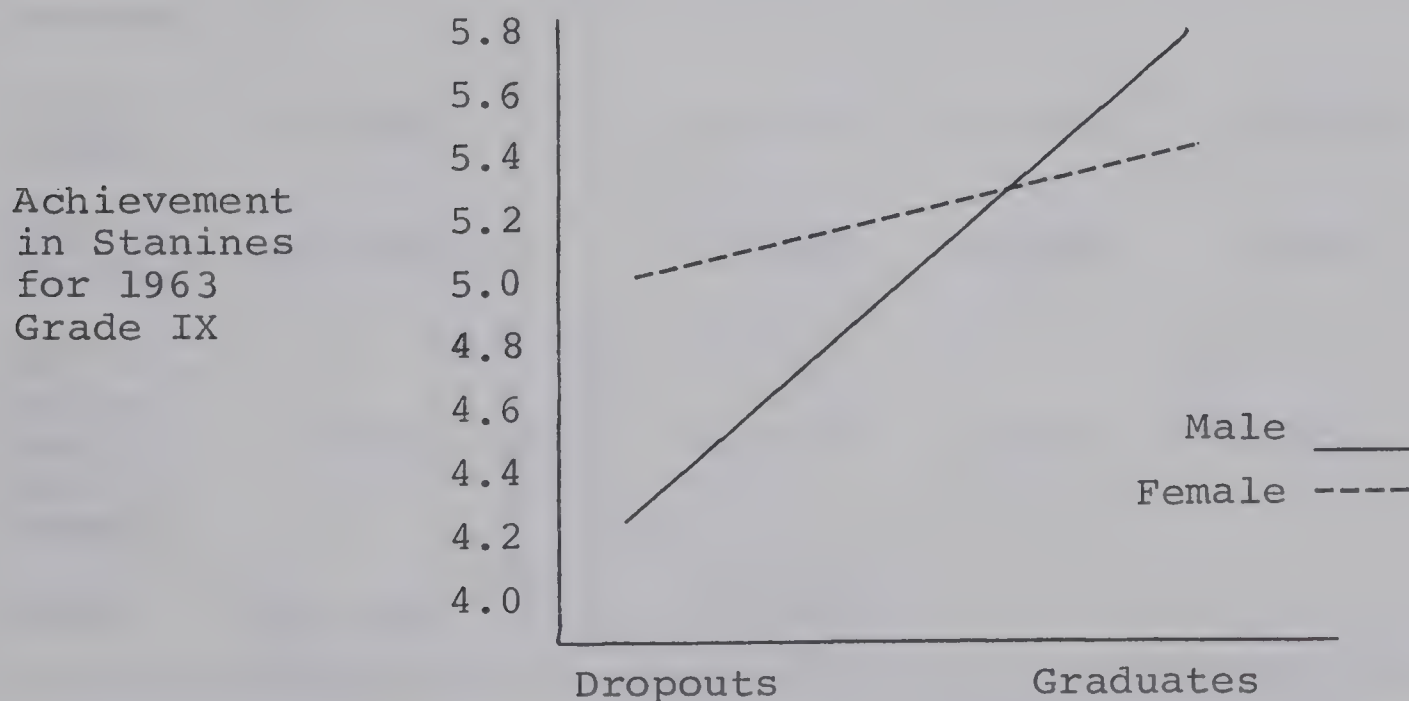






Table 8a

## CELL MEANS MATRIX FOR ACHIEVEMENT FACTOR

	N	Male	N	Female
Dropouts	23	4.3478	10	5.0000
Graduates	29	5.8275	21	5.5238

Table 8b

## ANALYSIS OF VARIANCE TABLE FOR ACHIEVEMENT FACTOR

SOURCE	SUM OF SQUARES	D.F.	MEAN SQUARES	F-RATIO	PROBABILITY
Between					
D.O. & Grads.	17.7971	1	17.7971	8.1461	0.0055*
Male & Female	0.5393	1	0.5393	0.2468	0.6206
Inter- action Sex by D.O. & Grads.	4.0510	1	4.0510	1.8542	0.1771
Error	172.5940	79	2.1847		

\* Probability < .05

MENTAL ABILITY

Mental ability (verbal and quantitative) was measured by Grade IX Scholastic Ability Test. The measures of



verbal and quantitative ability were analyzed independently.

No significant difference in the mean scores for verbal ability was found for any of the groups. Nor was any significant difference found with regards to the quantitative ability scores.

A statistical difference almost occurred in the quantitative ability mean scores, however, analysis failed to produce the necessary .05 level.

Figure 5  
GRAPHIC ILLUSTRATION FOR VERBAL  
MENTAL ABILITY FACTOR

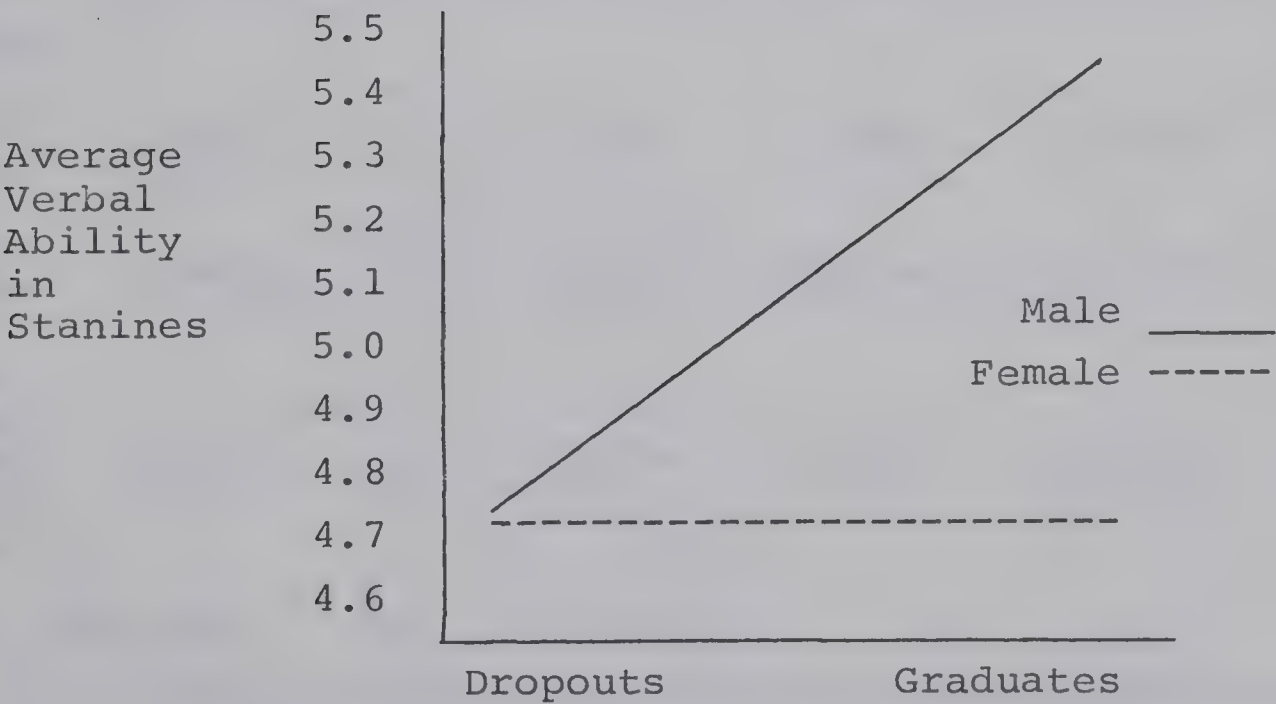






Table 9a

## CELL MEANS MATRIC FOR VERBAL ABILITY FACTOR

	N	Male	N	Female
Dropouts	23	4.7391	10	4.7000
Graduates	29	5.4827	21	4.7142

Table 9b

ANALYSIS OF VARIANCE TABLE FOR  
VERBAL MENTAL ABILITY FACTOR

SOURCE	SUM OF SQUARES	D.F.	MEAN SQUARES	F-RATIO	PROBABILITY
Between					
D.O. & Grads.	2.5463	1	2.5463	1.0260	0.3142
Male & Female	2.8911	1	2.8911	1.1649	0.2837
Inter- action sex by D.O. & Grads.	2.3579	1	2.3579	0.9501	0.3326
Error	196.062	79	2.4818		

Probability &gt; .05



Figure 6

GRAPHIC ILLUSTRATION FOR QUANTITATIVE  
MENTAL ABILITY FACTOR

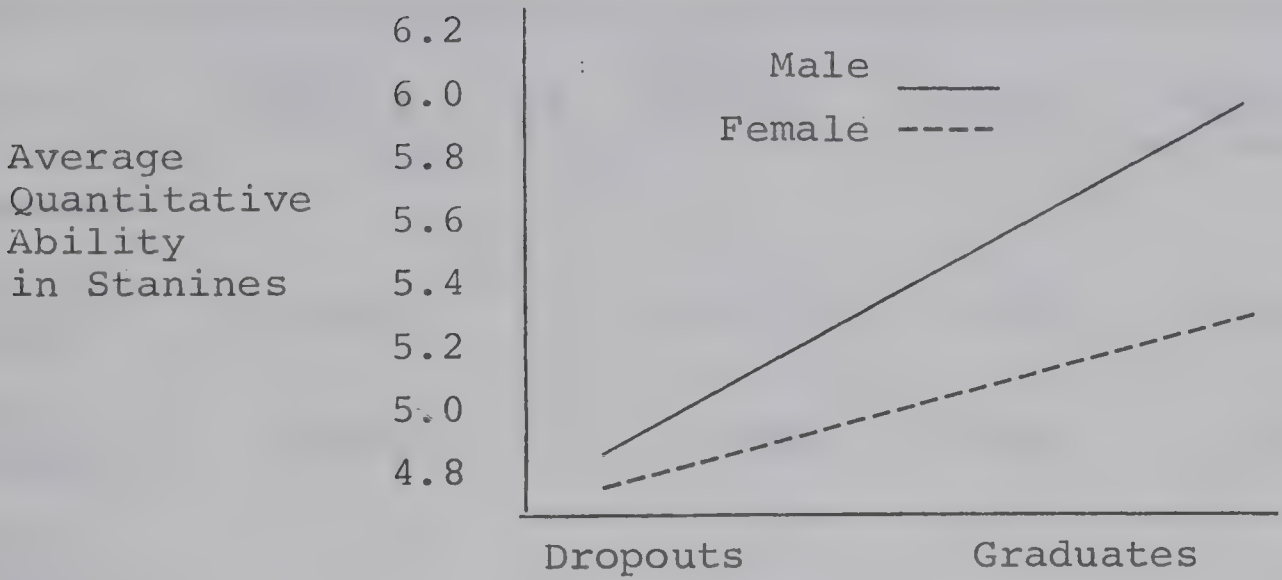


Table 10a

CELL MEANS MATRIX FOR  
QUANTITATIVE MENTAL ABILITY FACTOR

	N	Male	N	Female
Dropouts	23	4.9130	10	4.8000
Graduates	29	6.0689	21	5.3333



Table 10b  
ANALYSIS OF VARIANCE TABLE FOR  
QUANTITATIVE MENTAL ABILITY FACTOR

SOURCE	SUM OF SQUARES	D.F.	MEAN SQUARES	F-RATIO	PROBABILITY
Between					
D.O. & Grads.	12.6528	1	12.6528	3.3774	0.06985
Male & Female	3.1982	1	3.1982	0.8537	0.3583
Inter- action Sex by D.O. & Grads.	1.7180	1	1.7180	0.4585	0.5002
Error	295.955	79	3.7462		

Probability > .05









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